WEATHER MAPS,

PUBLISHED AT SYDNEY,

NEW SOUTH WALES,

1886.

H. C. RUSSELL, B.A.,

GOVERNMENT ASTRONOMER.

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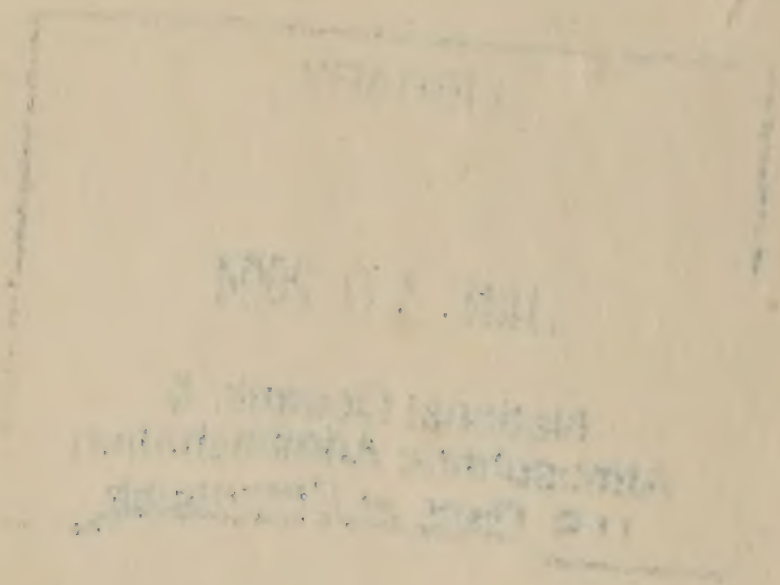


METEOROLOGICAL REPORTS AND MAP FOR JANUARY 1, 1886.

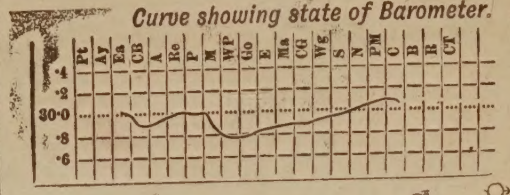
Stations	w	Mx	Mn	R'in
Albury	c	109	76	0
Armidale	b	88	57	0
Balranald	b	118	66	0
Bathurst	b	96	57	0
Bend'm'r	b	91	54	0·11
Bodalla ..	c	88	—	0
Bourke ..	b	115	76	0
C'md'n H.	b	81	69	0
C. St. Geo.	c	78	65	0
Carcoar ..	b	89	63	0
Casino ..	b	92	65	0
Cassilis ..	b	95	63	0
Clarence	b	89	70	0
C'nd'b'lin	b	90	76	0
Cooma ..	c	97	57	0
Coonab'n	b	100	56	0
C'nam ble	b	—	—	—
Cowra ..	b	101	71	0
Deniliq'n	b	114	78	0
Dubbo ..	b	107	64	0
Eden	b	86	68	0
Euston ..		116	71	0
Forbes ..	b	105	69	0
Gl'n Inn's	b	94	53	0
Goulburn	b	99	57	0
Grafton ..	b	90	67	0
Gulgong	b	91	73	0
Gunned'h	–	—	—	–
Hay	c	111	77	0
Hill End	b	—	—	0
Inverell ..	b	81	63	0
Kiandra	b	87	50	0
Lismore	b	90	67	0
Maitland	b	99	65	0
Marsdens	c	100	76	0
Menindie	b	103	79	0
Molong ..	–	—	—	–
Moree ..	b	102	70	0
Moruya ..	b	82	64	0
Moss Vale	b	91	62	0
Mt. Hope	b	102	82	0
M. Vict'ria	b	94	59	0·24
Mudgee ..	b	99	58	0
M'rr'mb'h	c	102	69	0
M'rr'r'ndi	b	91	66	0
Mus'lbr'k	b	—	—	0
Narrabri	b	106	71	0
Newcastle	–	—	—	–
Nowra ..	–	—	—	–
Orange ..	c	90	58	0
Picton ..	c	95	61	0
P. M'q'rie	b	82	64	0
P.St'ph'ns	b	86	63	0
Q'nbeyan	b	95	67	0
Quirindi	b	96	64	0
Singleton	b	100	70	0
SYDNEY ..	b	81	65	0
Tamw'rth	–	—	—	–
Taralga ..	–	—	—	–
Tarce	b	93	66	0
T'nt'rfield	b	86	55	0
Wagga ..	c	89	72	0
Walcha ..	b	87	51	0
Walgett ..	c	110	73	0
W'ntw'rth	b	112	71	0
Wilcannia	b	—	—	0

SYDNEY OBSERVATORY.

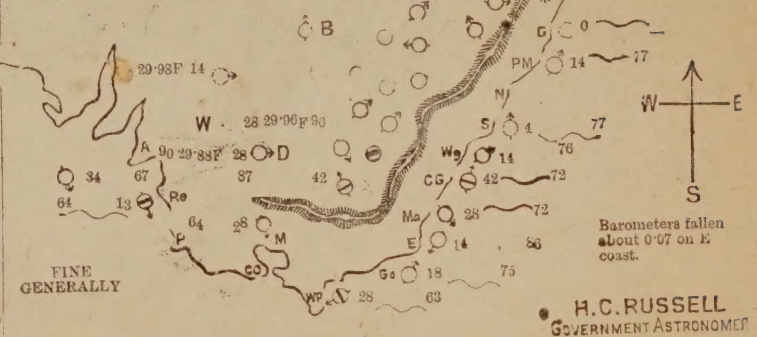
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·860
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st .....0·000
Barometers corrected to 32° Fah. and Mean Sea Level.

Fine, wind N — Clo wind E
T. storm, wind S. — Rain, wind W
If it is CALM, the symbol is used without the arrow
Smooth sea
Heavy sea.
Very heavy sea.



TIME BALL
Drops at 1 p.m. S M T
2h. 55m. 9·19s. a.m
Greenwich Mn. Time
Mag. Var. 9° 35′ 37″ E



Barometers fallen about 0·07 on E coast.

FINE GENERALLY

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.. b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay. Albany; Ea. Eucla, CB. Cape Borda; A, Adelaide; Re. Robe; P. Portland; M. Melbourne; W P. Wilson's Promontory; Go. Gabo; E, Eden; Ma. Moruya; C G Jervis Bay, Wg. Wollongong; S, Sydney; N. Newcastle; P M. Port Macquarie; C. Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Weather generally sultry and hot; fine, but cloudy; wind from south and south-east, at from 23 to 34 miles per hour on and near coast; variable inland; no rain reported.

Victoria.—Weather fine generally; wind fresh, southerly; falling barometer and smooth sea; no rain.

Tasmania.—At Low Head, barometer 29·80; wind, W.N.W.; fine weather.

New South Wales.—Fine, generally, and very hot in places; wind light and variable; barometer fallen slightly generally, sea smooth. Extra station:—Morangarell, maximum 105, minimum 70, weather cloudy. For particulars see map.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet 1 inch above summer level; at Hay, summer level; at Balranald, 9 inches below summer level. Murray: At Albury, 1 foot 10 inches above summer level; at Euston, 3 feet above summer level. Darling: At Wentworth, 2 feet 9 inches above summer level; at Pooncarrie, Menindie, Wilcannia, and Bourke, low.

ASTRONOMICAL MEMORANDA FOR JANUARY 2.

Sun rises at 4.55, sets at 7.13; Moon, 2.42 a.m., 4.12 p.m.; Mercury, 3.30 a.m., 5.31 p.m.; Venus, 8.29 a.m., 9.49 p.m.; Mars, 11.1 p.m., 10.33 a.m.; Jupiter, 11.28 p.m., 11.38 a.m.; Saturn, 6.34 p.m., 4.28 a.m. New moon, 5th; full moon, 20th.

High water at Fort Denison, January 2: 5.50 a.m. and 6.20 p.m.

METEOROLOGICAL RECORDS, 1924.

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 2, 1886.

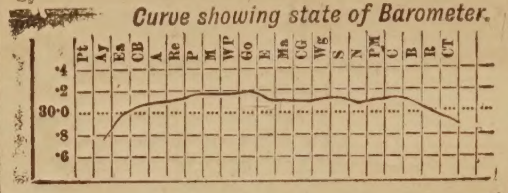
Stations	wt	Mx	am	R in
Albury	c	107	74	0
Armidale	b	85	60	0
Balranald	b	115	53	0·10
Bathurst	u	97	69	0
Bend'm'r	b	91	58	0
Bodalla ..	c	—	—	0
Bourke ..	b	112	76	0
C'md'n H.	b	81	71	0
C. St. Geo.	b	93	66	0
Carcoar ..	c	89	71	0
Casino ..	b	89	64	0
Cassilis ..	b	95	78	0
Clarence	b	90	70	0
C'nd'b'lin	b	86	71	0
Cooma ..	c	100	90	0·45
Coonab'n	h	101	68	0
C'nam ble	b	—	—	0
Cowra ..	c	104	77	0
Deniliq'n	b	111	63	0
Dubbo ..	b	107	76	0·01
Eden	u	90	63	0
Euston ..	–	—	—	–
Forbes ..	g	108	74	0·04
Gl'n Inn's	b	98	61	0
Goulburn	g	100	64	0
Grafton ..	b	90	69	0
Gulgong	b	92	74	
Gunned'h	b	103	70	0
Hay	c	111	69	0
Hill End	b	--	--	0
Inverell ..	b	81	67	0
Kiandra	b	85	55	0·21
Lismore	c	86	69	0·03
Maitland	b	99	70	0
Marsdens	c	102	78	0·07
Menindie	b	106	83	0
Molong ..	o	104	64	0
Moree ..	b	97	72	0
Moruya ..	o	85	66	0·04
Moss Vale	–	—	—	–
Mt. Hope	b	103	84	0
M. Vict'ria	h	93	59	0
Mudgee ..		99	67	0
M'rr'mb'h	c	100	74	0
M'rr'r'ndi	b	92	70	0
Mus'lbr'k	b	—	—	0
Narrabri	b	109	75	0
Newcastle	b	83	66	0
Nowra ..	b	94	62	0
Orange ..	c	93	65	0
Picton ..	g	96	69	0
P. M'q'rie	b	84	65	0
P.St'ph'ns	b	86	65	0
Q'nbeyan	b	95	67	0
Quirindi	b	104	68	0
Singleton	b	82	72	0
Sydney ..	c	81	69	0·01
Tamw'rth	–	—	—	–
Taralga ..	c	103	62	0
Taree	b	90	69	0
T'nt'rfield	c	88	61	0
Wagga ..	b	86	73	0
Walcha ..	t	87	56	0
Walgett ..	b	111	75	0
W'ntw'rth	b	108	72	0
Wilcannia	b	—	—	0
Will'ng'ng	b	80	68	0·03
Young ..		100	70	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·360
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 2nd ..... 0·008
Barometers corrected to 32° Fah. and Mean Sea Level.

Fine, wind S. Cloudy, wind E.
T. storm, wind S. Rain, wind W.
If it is calm, the symbol is used without the arrow.
Smooth sea
Heavy sea.
Very heavy sea.



TIME BALL.
Drops at 1 p.m. S.M.T.
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35′ 37″ E.

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NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Bernouilli; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Cr, Cooktown. Inland the state of barometer is given by figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing eastwards, northerly winds preceding them, and southerly following.

Western Australia.—Weather fine generally with easterly winds and low barometer; no rain.

South Australia.—Generally fine and hot inland, scattered clouds north of Burra and on parts of coast; winds from S.E. to N.E., and 23 to 34 miles per hour in places. Sea rough off Wilson's Promontory and Cape Otway.

Tasmania.—At Low Head, barometer 30·25; wind S.S.E.; weather cloudy.

New South Wales.—Weather fine generally, cloudy and threatening in places, and light rain has fallen in the country beyond the mountains; wind generally easterly; barometer has risen generally (For particulars see map).

Queensland.—Weather cloudy; raining generally. Rain measured 2.25 at Cooktown, where heavy showers are falling; wind, S.E. generally, sea rough off Townsville.

3 P.M. OBSERVATIONS.

New South Wales.—Albury, N.E., fine, hot, temperature 92°; Cape St. George, S., 20, cloudy, smooth sea, temperature 66°; Clarence River, S.E., 10, fine, smooth sea, temperature 81°; Deniliquin, S.E., 14, fine, clear, hot, temperature 91°; Dubbo, calm, fine, temperature 91°; Eden, calm, cloudy, smooth sea, temperature 67°; Goulburn, N.E., 14, fine, temperature 76°; Port Macquarie, N.E., 14, fine, smooth sea, temperature 81°; Sydney, S.E., 10, cloudy, smooth sea; Walgett, S.E., fine, hot, temperature 80°.

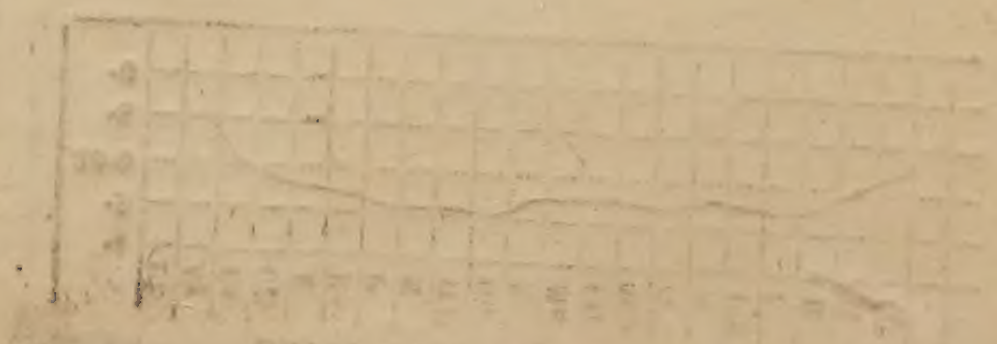
STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 10 inches above summer level; at Hay, summer level; at Balranald, 10 inches below summer level. Murray: At Albury, 1 foot 8 inches above summer level. Darling: At Wentworth, 2 feet 8 inches above summer level; at Pooncarrie, low; at Menindie, risen several feet; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR JANUARY 4.

Sun rises at 4.57, sets at 7.14; Moon, 4.18 a.m., 5.55 p.m.; Mercury, 3.27 a.m., 5.30 p.m.; Venus, 8.29 a.m., 9.44 p.m.; Mars, 10.35 p.m., 10.27 a.m.; Jupiter, 11.21 p.m., 11.31 a.m.; Saturn, 6.25 p.m., 4.19 a.m. New moon, 5th; full moon, 20th.

High water at Fort Denison, January 4: 7.31 a.m. and 7.53 p.m.



METEOROLOGICAL REPORTS AND MAP FOR JANUARY 4, 1886.

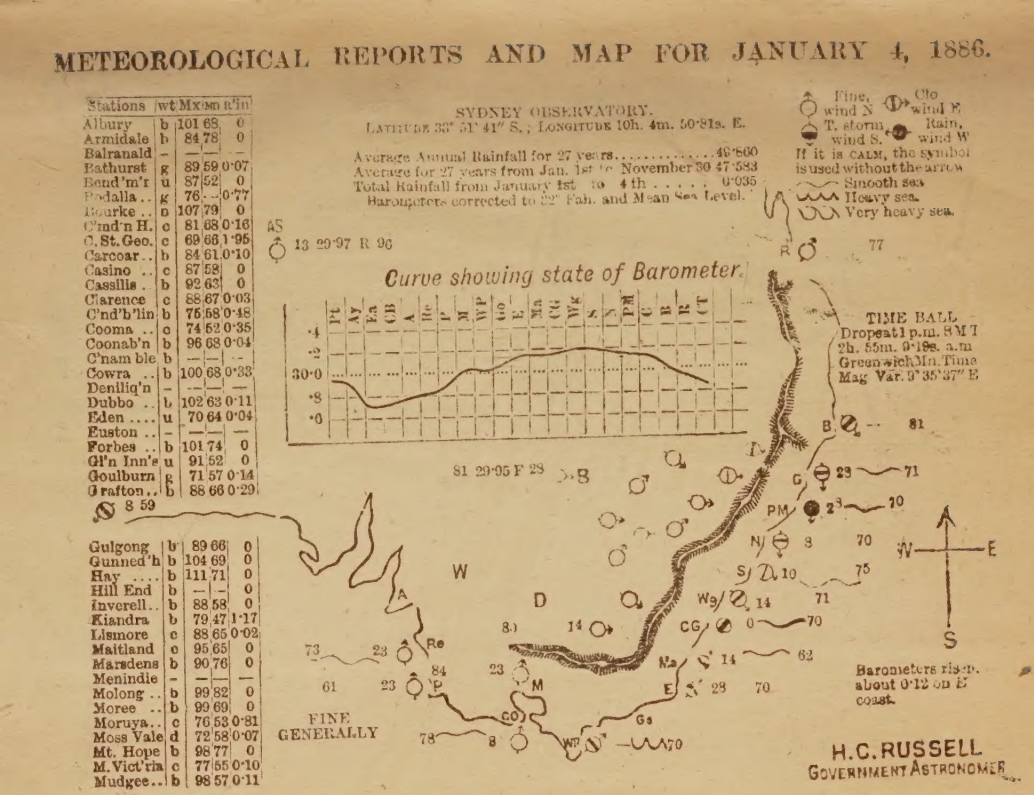
Stations	wt	Mx	mn	R'in
Albury	b	101	68	0
Armidale	b	84	78	0
Balranald	–	—	—	—
Bathurst	g	89	59	0·07
Bend'm'r	u	87	52	0
Bodalla ..	g	76	—	0·77
Bourke ..	n	107	79	0
C'nd'n H.	c	81	68	0·16
C. St. Geo.	c	69	66	1·95
Carcoar ..	b	84	61	0·10
Casino ..	c	87	58	0
Cassilis ..	b	92	63	0
Clarence	c	88	67	0·03
C'nd'b'lin	b	75	58	0·48
Cooma ..	c	74	52	0·35
Coonab'n	b	96	68	0·04
C'nam ble	b	—	—	—
Cowra ..	b	100	68	0·33
Deniliq'n	–	—	—	—
Dubbo ..	b	102	63	0·11
Eden	u	70	64	0·04
Euston ..	–	—	—	—
Forbes ..	b	101	74	0
Gl'n Inn's	u	91	52	0
Goulburn	g	71	57	0·14
Grafton ..	b	88	66	0·29
Gulgong	b	89	66	0
Gunned'h	b	104	69	0
Hay	b	111	71	0
Hill End	b	—	—	0
Inverell ..	b	88	58	0
Kiandra	b	79	47	1·17
Lismore	c	88	65	0·02
Maitland	c	95	65	0
Marsdens	b	90	76	0
Menindie	–	—	—	—
Molong ..	b	99	82	0
Moree ..	b	99	69	0
Moruya ..	c	76	53	0·81
Moss Vale	d	72	58	0·07
Mt. Hope	b	98	77	0
M. Vict'ria	c	77	55	0·10
Mudgee ..	b	98	57	0·11
M'rr'mb'h	b	88	75	0·38
M'rr'r'ndi	u	92	66	0
Mus'lbr'k	b	—	—	0
Narrabri	b	100	68	0·02
Newcastle	c	76	67	0
Nowra ..	–	—	—	—
Orange ..	c	81	57	0·22
Picton ..	u	80	61	0·01
P. M'q'rie	p	80	63	0·45
P.St'ph'ns	r	88	63	0·03
Q'nbeyan	c	78	61	0·63
Quirindi	c	100	64	0
Singleton	K	94	68	0
SYDNEY ..	c	80	67	0·03
Tamw'rth	–	—	—	—
Taralga ..	g	80	49	0
Tares	K	86	68	0
T'nt'rfield	u	81	54	0
Wagga ..	b	83	45	0
Walcha ..	g	87	50	0·03
Walgett ..	b	102	71	0
W'tw'rth	–	—	—	—
Wilcannia	b	—	—	0
Wil'ng'ng	g	82	65	0·15
Young ..	b	89	60	0·36

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S., LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·860
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 4th .... 0·036
Barometers corrected to 32° Fah. and Mean Sea Level.

Fine, wind N. Clo wind E.
T. storm, wind S. Rain, wind W.
If it is CALM, the symbol is used without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.

TIME BALL
Dropped 1 p.m. S.M.T
2h. 55m. 0·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35′ 37″ E



H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n. the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ba, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy, with fresh S. winds and rough sea. No rain.

South Australia.—Reports weather generally fine, very hot, with light to fresh N.E. and N. winds, and falling barometer. Very hot and sultry in interior. Rainfall, Daly Waters, 0.13.

Victoria.—Fine and clear, with fresh N. winds and warm weather. Falling barometer, and moderate sea on coast. Rainfall, Lake Entrance, 0·05.

Tasmania.—Dull on north coast, with light E. wind and falling barometer. No rain.

New Zealand.—Russell bar, 30.20. S.W., fine. Bluff bar, 30.20, S.E., fine. Strong S.W. wind on N.W. coast.

New South Wales.—Generally fine and clear, with light S.E. to N.E. winds and calms, cloudy on coast with rain in places. Good but scattered rains have fallen on the coast since Saturday, of which full details are given in map above. Nowra, rain 1·92 inches, clearing.

Queensland.—Generally fine and clear, with light S.E. winds and smooth sea. Rainfall—Cooktown, 0·18.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N., 18, fine and clear, temperature 87°; Cape Otway, calm, smoke haze, smooth sea, temperature 94°; Portland, N., 23, hot wind, smoke haze, smooth sea, temperature 91°; Wilson's Promontory, N.E., 23, squally with haze, rather rough sea, temperature 82°.

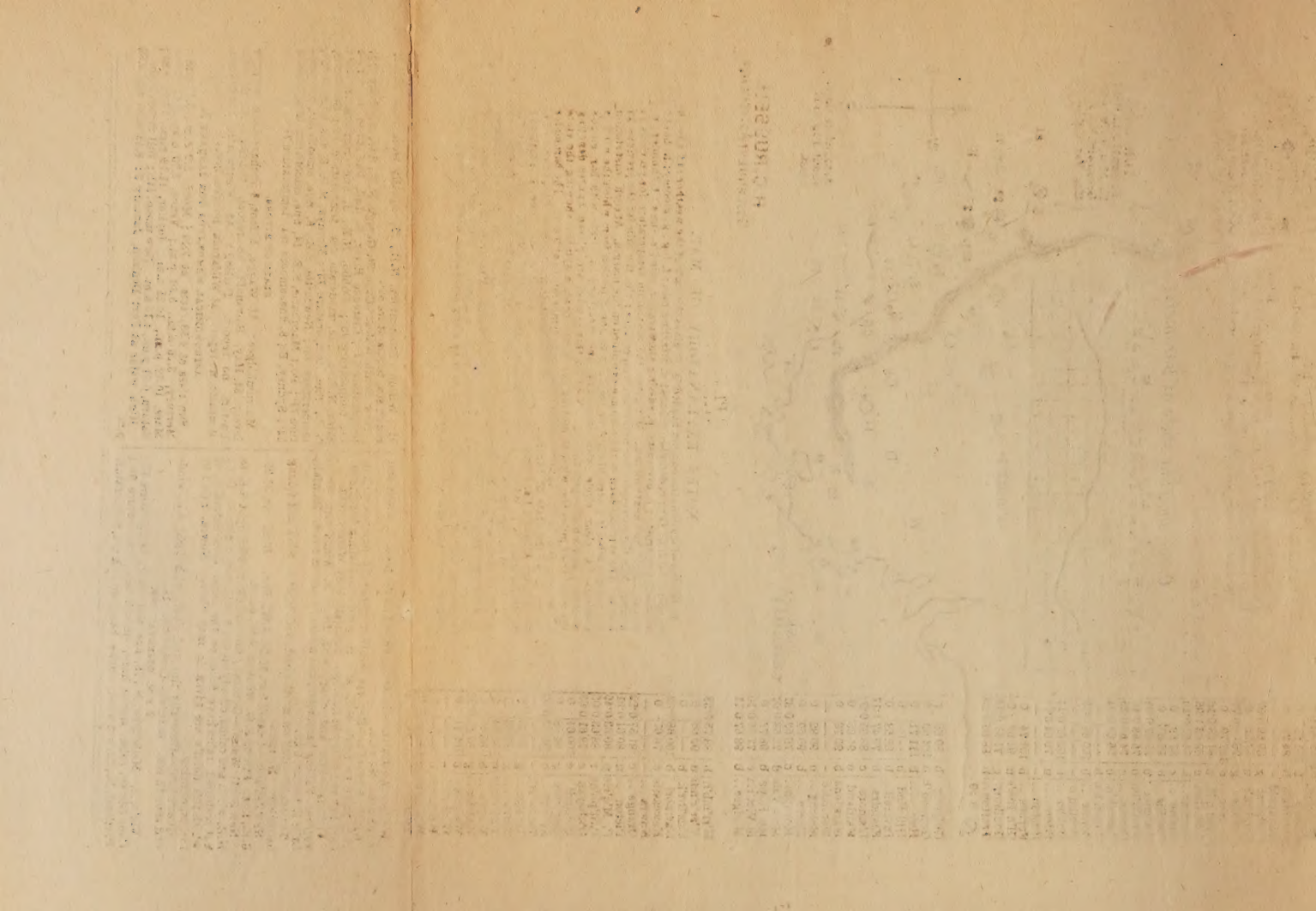
New South Wales.—Cape St. George, N.E., fine, moderate sea, temperature 77°; Clarence River, S., dull, like storm, moderate sea, temperature 75°; Dubbo, N.E., 2, fine, temperature 93°; Eden, N.E., 2, fine, moderate sea, temperature 72°; Goulburn, N.E., fine, temperature 73°; Moruya, N.E., 3, fine, smooth sea, temperature 73°; Newcastle, S.E., 8, fine, smooth sea, temperature 74°; Port Macquarie, S.E., 14, fine, smooth sea, temperature 82°; Sydney, E., 8, fine, smooth sea, temperature 77°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 8 inches above summer level; at Hay, Balranald, no report. Murray: At Albury, Euston, no report. Darling: At Wentworth, Pooncarrie, Menindie, no report; at Wilcannia, Bourke, low.

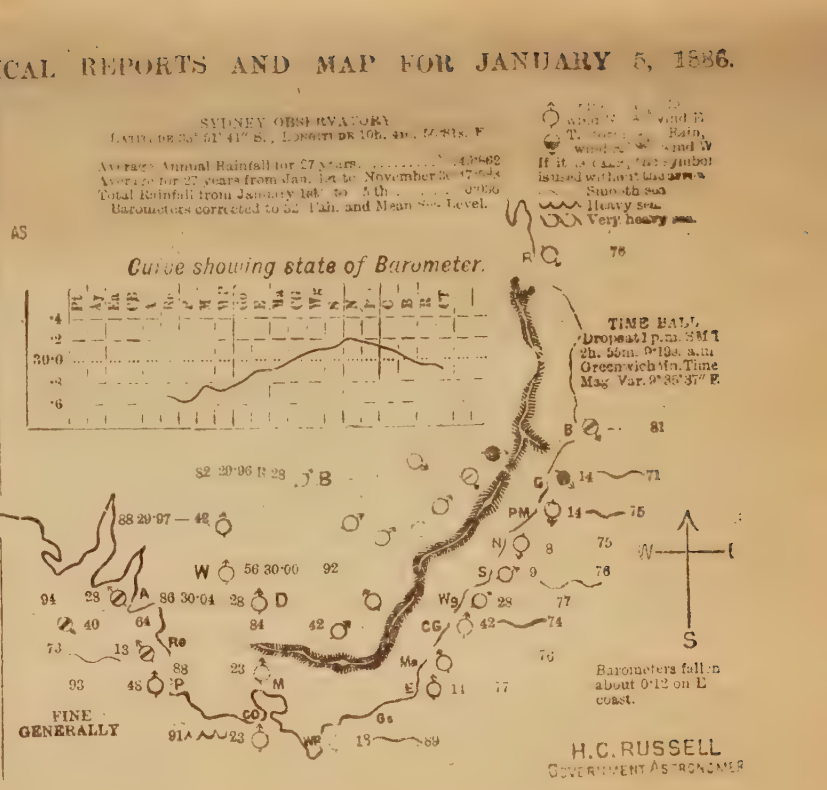
ASTRONOMICAL MEMORANDA FOR JANUARY 5.

Sun rises at 4.58, sets at 7.14; Moon, 5.2 a.m., 6.42 p.m.; Mercury, 3.26 a.m., 5.30 p.m.; Venus, 8.29 a.m., 9.42 p.m.; Mars, 10.52 p.m., 10.25 a.m.; Jupiter, 11.18 p.m., 11.27 a.m; Saturn, 6.21 p.m., 4.15 a.m. New moon, 5th; full moon, 20th.
High water at Fort Denison, January 5: 8.13 a.m. and 8.32 p.m.



METEOROLOGICAL REPORTS AND MAP FOR JANUARY 5, 1886.

Stations	wt	Mx	mn	Rin
Albury	b	101	62	0
Armidale	b	70	57	0·01
Balranald	b	115	71	0
Bathurst	b	86	56	0
Bend'm'r	c	82	53	0
Bodalla ..	o	81	—	0
Bourke ..	b	104	76	0
C'md'n H.	c	80	69	0
C. St. Geo.	b	79	63	0
Carcoar ..	b	80	61	0
Casino ..	r	79	63	0·59
Cassilis ..	b	80	61	0
Clarence	p	85	63	0·98
C'nd'b'lin	b	75	60	0
Cooma ..	c	89	55	0
Coonab'n	b	90	57	0
C'nam ble	b	—	—	—
Cowra ..	b	102	69	0
Deniliq'n	b	105	57	0
Dubbo ..	b	98	64	0
Eden	b	76	62	0
Euston ..	b	113	84	0
Forbes ..	b	98	65	0
Gl'n Inn's	c	77	57	0
Goulburn	b	86	49	0
Grafton ..	c	87	76	0·27
Gulgong	b	84	70	0
Gunned'h	–	—	—	–
Hay	b	111	71	0
Hill End	b	—	—	0
Invercll ..	c	81	60	0
Kiandra	b	78	41	0
Lismore	p	83	69	0·75
Maitland	c	93	64	0
Marsdens	b	96	75	0
Menindie	b	102	81	0
Molong ..	b	90	60	0
Moree ..	c	96	69	0
Moruya ..	b	78	59	0
Moss Vale	c	74	67	0
Mt. Hope	b	97	74	0
M. Vict'ria	c	78	54	0
Mudgee ..	b	89	58	0
M'rr'mb'h	b	95	67	0
M'rr'mdi	b	82	66	0
Mus'lbr'k	b	91	61	0
Narrabri	b	99	67	0
Newcastle	c	77	67	0·03
Nowra ..	–	—	—	—
Orange ..	b	81	58	0
Picton ..	c	80	63	0
P. M'q'rie	b	79	65	0·15
P.St'ph'ns	c	83	63	0·07
Q'nbeyan	b	79	59	0
Quirindi	b	100	61	0
Singleton	b	83	68	0
Sydney ..	b	79	66	0
Tamw'rth	b	95	50	0
Taralga ..	b	79	46	0
Taree	c	88	68	0·09
T'nt'rfield	g	77	59	0·03
Wagga ..	b	87	68	0
Walcha ..	u	70	53	0·04
Walgett ..	b	97	69	0
W'ntw'rth	b	111	83	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	82	66	0
Young ..	b	93	66	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, rosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; Rin the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown.—Pt, Perth; Ay, Albany; Eu, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Cc, Cooktown. Inland the state of barometer is given by figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Reports weather generally hot and dusty, with scattered clouds. Prevailing winds N. to N.W., and fresh. Moderate sea and steady barometers on coast. No rain. No reports from stations N. of Port Augusta.

Victoria.—Generally fine and hazy, with strong hot north wind and falling barometers. Moderate sea on coast (rough at Cape Otway.) No rain, wind very strong and hot in places. Portland reports temperature in shade at 9 a.m., 93; and velocity of wind, 48 miles per hour.

Tasmania.—Hazy on N. coast, with fresh N.E. breeze.

New Zealand.—Russell, bar 30·20., S.E.; Wellington, bar. 30·20, N.E.; Bluff, bar. 30·10, W.; Gisborne, bar. 30·20, S.E.; —generally fine and clear. Rough sea at Gisborne.

New South Wales.—Generally fine and clear, with fresh N.E. to N.W. winds; cloudy in N. and N.W. of colony; showery on coast N. of Clarence River; moderate rain recorded on and near coast to the N. of Port Macquarie; heaviest, 0·94, at Clarence Heads; 0·75 at Lismore, and 0·59 at Casino, and still falling at all three stations at 9 a.m. Full details in map above.

Queensland.—Generally fine and clear, with S.E. winds and moderate sea; cloudy at Brisbane and Cape Moreton. Rainfall—Brisbane, 0·06.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N., 23, fine, temperature 100°; Portland, S.W., 34, cloudy, smooth sea, temperature 72°; W... Promontory, N.N.E., 18, sultry, moderate sea, temperature ...

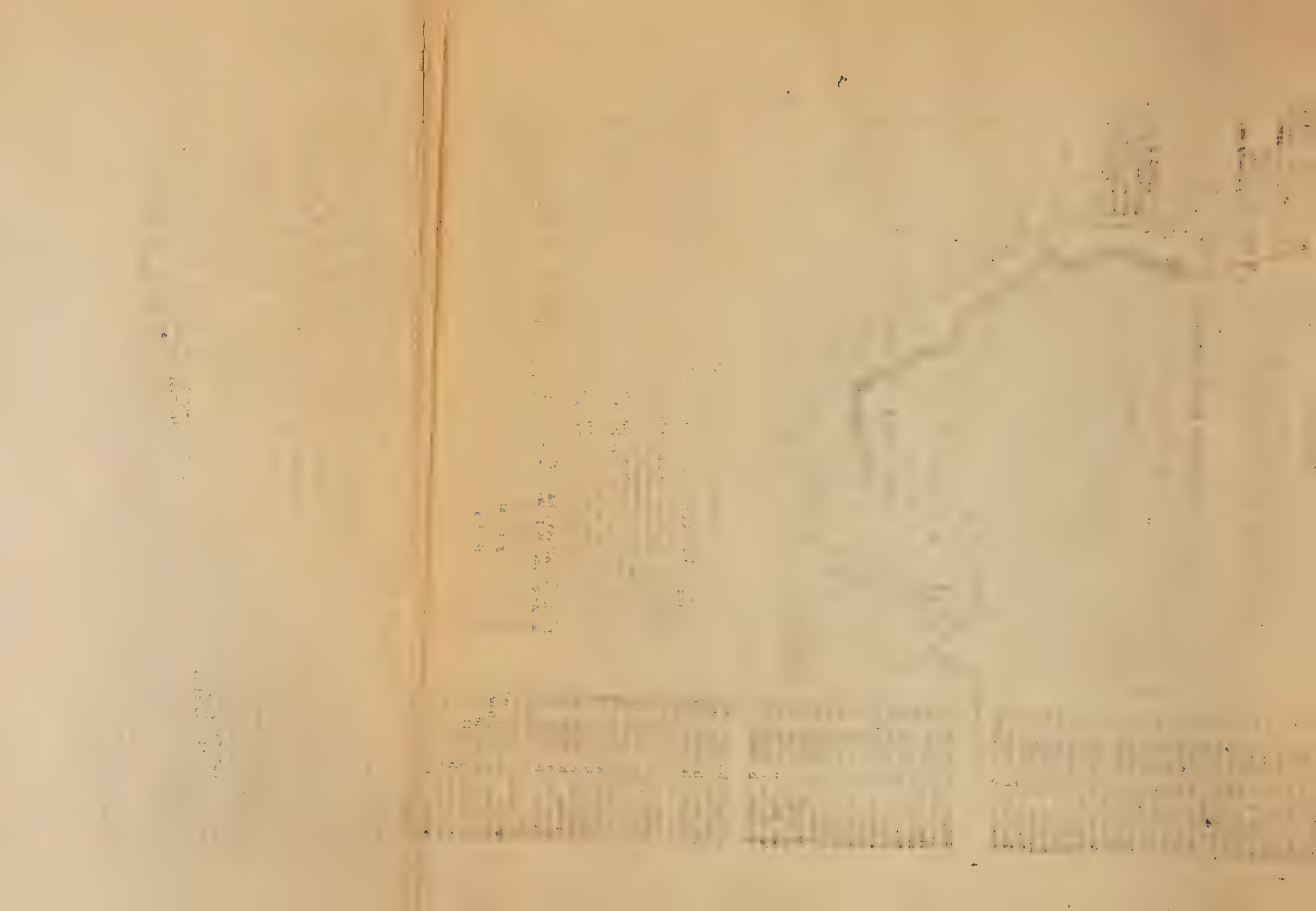
New South Wales.—Albury, N.E., fine, hot, temperature 94°; Cape St. George, N., fine, smooth sea, temperature 77°; Dubbo, N.E., fine, temperature 84°; Eden, N.E., 23, fine, slight sea, temperature 76°; Goulburn, N.E., fine, temperature 7... Moruya, N.E., 42, fine, moderate sea, temperature 74°; Newcastle, N.E., 13, fine, smooth sea, temperature 74°; P... Macquarie, N.E., showery, moderate sea, temperature 82 Sydney, E.N.E., 13, fine, smooth sea, temperature 75°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 7 inches above summer level; at Hay, summer level; at Balranald, 1 foot below summer level. Murray: At Euston, 2 feet 9 inches above summer level. Darling: At Wentworth, 2 feet 3 inches above summer level; at Pooncarrie, low; at Menindie, low; at Wilcannia, 2 feet 1 inch above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR JANUARY 6.

Sun rises at 4.58, sets at 7.14; Moon, 5.52 a.m., 7.26 p.m
Mercury, 3.25 a.m., 5.30 p.m.; Venus, 8.29 a.m., 9.40 p.m
Mars, 10.49 p.m., 10.22 a.m.; Jupiter, 11.14 p.m., 11.23 a.m
Saturn, 6.17 p.m., 4.11 a.m. New moon, 5th; full moon, 20th.
High water at Fort Denison, January 6: 8.51 a.m. and 9.1... p.m.

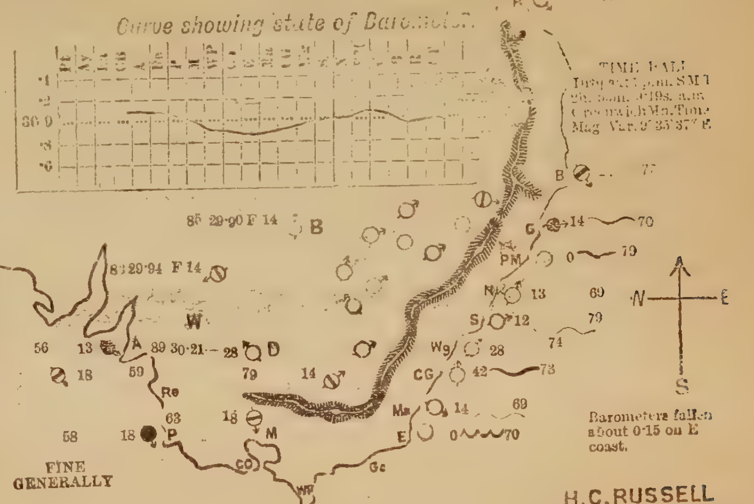


METEOROLOGICAL REPORTS AND MAP FOR JANUARY 6, 1886

SYDNEY OBSERVATORY.
LATITUDE 33° 51' 41" S.; LONGITUDE 10h. 4m. 49s. E.

Average Annual Rainfall for 27 years........... 49·862
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 6th ...... 0·036
Barometers corrected to 32 Fah. and Mean Sea Level.

Stations	WT	Mx	Mn	R'n
Albury	c	101	67	0
Armidale	b	74	53	0
Balranald	c	113	64	0
Bathurst	b	90	58	0
Bend'm'r	b	80	58	0
Bodalla	b	86	—	0
Bourke	b	101	74	0
C'md'n H.	b	82	70	0
C. St. Geo.	b	94	60	0
Carcoar	b	84	66	0
Casino	c	84	63	0·35
Cassilis	b	81	63	0
Clarence	p	82	67	0·25
C'nd'b'lin	—	—	—	
Cooma	b	92	54	0
Coonab'n	b	93	59	0
C'nam ble	b	—	—	—
Cowra	b	102	74	0
Deniliq'n	c	105	76	0
Dubbo	b	100	69	0
Eden	b	78	63	0
Euston	b	111	63	0
Forbes	b	104	74	0
Gl'n Inn's	c	76	54	0
Goulburn	b	96	55	0
Grafton	c	84	68	0·14
Gulgong	b	88	68	0
Gunned'h	b	99	70	—
Hay	b	109	76	0
Hill End	b	—	—	0
Inverell	b	83	57	0
Kiandra	b	80	44	0
Lismore	p	83	67	0·38
Maitland	b	92	60	0
Marsdens	b	98	76	0
Menindie	c	99	81	0
Molong	b	91	61	0
Moree	b	92	67	0
Moruya	b	80	63	0
Moss Vale	b	81	58	0
Mt. Hope	b	93	76	0
M. Vict'ria	b	88	55	0
Mudgee	b	91	57	0
M'rr'mb'h	—	—	—	—
M'rr'r'ndi	b	85	65	0
Mus'lbr'k	b	94	61	0
Narrabri	b	102	65	0·14
Newcastle	b	79	67	0
Nowra	—	—	—	—
Orange	b	84	54	0
Picton	b	83	58	0
P. M'q'rie	b	86	67	0·01
P. St'ph'ns	b	85	64	0
Q'nbeyan	b	87	65	0
Quirindi	b	95	63	0
Singleton	b	90	67	0
SYDNEY	b	80	66	0
Tamw'rth	b	88	61	0
Taralga	b	91	50	0
Taree	c	87	63	0
T'nt'rfield	c	75	59	0·14
Wagga	b	95	66	0
Walcha	c	74	49	0
Walgett	b	98	70	0
W'ntw'rth	—	—	—	—
Wilcannia	b	—	—	0
W'll'ng'ng	b	82	67	0
Young	b	95	66	0



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla, CB, Cape Borda, A, Adelaide, Re, Robe; P, Port and; M, Melbourne; W P, Wilson's Promontory, Go, Gabo; E, Eden; Ma, Moruya, C G, Jervis Bay, Wg, Wollongong, S, Sydney, N, Newcastle, P M Port Macquarie; C, Clarence River, B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia reports cloudy weather on S. coast, with fresh S.E. wind, rising barometers, and moderate sea. Rainfall: Cape Borda, 0·02; Adelaide, 0·35, and falling lightly. No telegrams from northern or central stations.

Victoria.—Cloudy and showery on coast, with fresh S.E. winds, smooth sea, and rising barometers. Cloudy inland, with S. wind at Echuca and calm at Omeo. Rainfall: Portland, 0·50.

Tasmania.—Showery on N. coast, with fresh N. wind. Rain: Low Heads, 0·03.

New Zealand.—Russell, bar 30·20., wind S., fine and clear; Wellington, bar. 30·00, wind N.E., fine and clear; Bluff, bar. 29·99, wind N.W., fine, but cloudy.

New South Wales.—Generally fine and clear, with light N.E. winds and calms; still cloudy in places in extreme north of colony on the coast; showery at Clarence Heads and Lismore; moderate sea, falling barometers, and fresh N.E. winds on coast generally. **Nowra, max. 90, min. 61, weather fine and clear. Full details in map above.**

Queensland.—Generally fine and clear, with S.E. winds and moderate sea. **Rainfall**—Cape Moreton, 0·30.

3 P.M. OBSERVATIONS.

New South Wales.—Albury, N.E., fine, hot, temperature 92°; Cape St. George, N., 42, fine, temperature 75°; Clarence River, E., 14, fine, smooth sea, temperature 78°; Deniliquin, N., fine, hot, temperature 99°; Dubbo, W., 14, fine, temperature 86°; Goulburn, N.E., fine, temperature 80°; Menindie, S.W., strong, cloudy, temperature 85°; Moruya, S.E., 28, fine and hazy, smooth sea, temperature 70°; Newcastle, N.E., fine, smooth sea, temperature 74°; Port Macquarie, N.N.E., 28, fine, moderate sea, temperature 81°; Sydney, N.E., 13, fine, smooth sea, temperature 76°; Wentworth, S., showery, temperature 94°.

Victoria.—Melbourne, S.S.E., 13, raining, temperature 58°; Lake Entrance, S.W., 8, dull, smooth sea, temperature 70°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet 6 inches above summer level; at Hay, 1 foot above summer level; at Balranald, 1 foot below summer level. Murray: At Albury, 10 inches above summer level; at Euston, 3 feet 2 inches above summer level. Darling: At Wilcannia and Bourke, low.

ASTRONOMICAL MEMORANDA FOR JANUARY 7.

Sun rises at 4.59, sets at 7.14; Moon, 6.45 a.m., 8.7 p.m.; Mercury, 3.23 a.m., 5.29 p.m.; Venus, 8.29 a.m., 9.37 p.m.; Mars, 10.45 p.m., 10.19 a.m.; Jupiter, 11.10 p.m., 11.20 a.m.; Saturn, 6.12 p.m., 4.6 a.m. New moon, 5th; full moon, 20th.

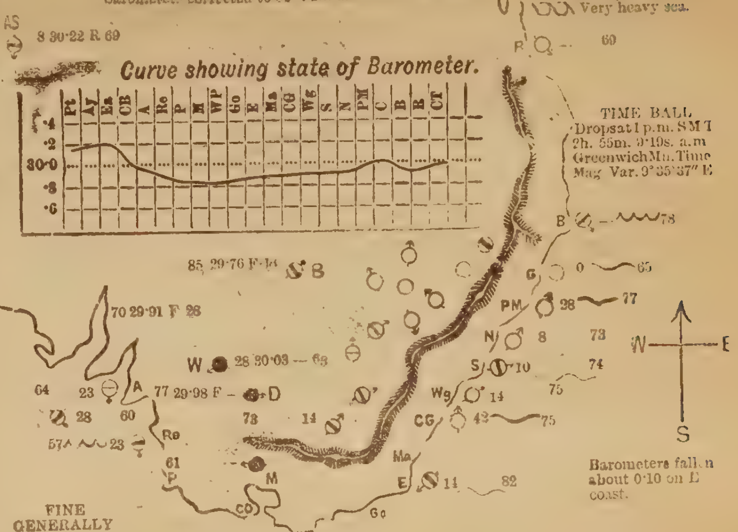
High water at Fort Denison, January 7: 9.28 a.m., and 9.45 p.m.

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 7, 1886

Stations	wt	Mx	m	r'in
Albury	u	101	73	0
Armidale	b	80	58	0
Balranald	u	101	57	0·20
Bathurst	c	95	58	0·58
Bend'm'r	b	85	56	0
Bodalla..	–	–	–	–
Bourke ..	g	106	75	0
C'md'n H.	b	80	68	0
C. St. Geo.	c	78	62	0
Carcoar..	b	85	64	0
Casino ..	u	86	60	0·31
Cassilis .	b	89	66	0
Clarence	b	87	65	0
C'nd'b'lin	–	–	–	–
Cooma ..	c	96	59	0
Coonab'n	c	96	57	0
C'nam ble	b	-	–	–
Cowra ..	b	103	71	0
Deniliq'n	r	105	62	0·07
Dubbo ..	c	99	63	0
Eden	g	74	63	0
Euston ..	r	88	54	0
Forbes ..	c	103	73	0
Gl'n Inn's	b	87	67	0
Goulburn	b	89	59	0·53
Grafton..	b	48	64	0
Gulgong	b	87	67	0
Gunned'h	b	99	72	0
Hay	g	110	73	0
Hill End	b	–	–	0
Inverell..	b	83	59	0
Kiandra	c	82	51	0
Lismore	c	81	66	0·14
Maitland	b	95	62	0
Marsdens	c	99	77	0
Menindie	g	93	62	0
Molong ..	c	91	64	0
Moree ..	b	93	68	0
Moruya..	–	–	–	–
Moss Vale	c	82	58	0
Mt. Hope	u	91	73	0
M. Vict'ria	c	88	58	0
Mudgee..	g	95	57	0
M'rr'mb'h	b	98	70	0·02
M'rr'r'ndi	b	88	69	0
Mus'lbr'k	b	101	62	0
Narrabri	b	102	69	0
Newcastle	b	82	65	0
Nowra ..	b	90	65	0
Orange ..	.	88	58	0
Picton ..	.	91	58	0
P. M'q'rie		86	64	0
P.St'ph'ns		86	63	0
Q'nbeyan		91	66	0·30
Quirindi		98	65	0
Singleton		–	–	–
Sydney ..		80	66	0
Tamw'rth		89	66	0
Taralga ..		99	57	0
Taree		86	65	0
T'nt'rfield		77	54	0
Wagga ..		91	72	0
Walcha ..		79	51	0
Walgett..		100	72	0
W'ntw'rth		75	54	0
Wilcannia		–	–	0·10
W'll'ng'ng	u	79	63	0
Young ..	u	100	63	0

SYDNEY OBSERVATORY.
Latitude 33° 51' 41" S.; Longitude 10h. 4m. 50·5s. E.

Average Annual Rainfall for 27 years .... 49·962
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 7th .... 0·036
Barometers corrected to 32° Fah. and Mean Sea Level.



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; u, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers along the coast from Perth to Cooktown.—Pt, Perth; Ay, Albany; Ea, Eucla; Cb, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—Generally fine and clear, with light E. winds and smooth sea. No rain.

South Australia.—Reports weather generally cloudy, cool inland to Beltana; prevailing winds, S.W. to S.E., and fresh. Rain recorded inland to Hergott, over an inch being measured at some stations; heaviest, 1·10 at Riverton. Rainfall—C. Borda, 0·02; Adelaide, 0·11; M'Donnell, 0·03.

Victoria.—Weather cloudy and showery, with light variable S.W. and S.E. winds and rough sea. Rainfall—Melbourne, 1·17; Lakes entrance, 0·51; Echuca, 0·22.

Tasmania.—Light rain, with fresh S.S.E. wind on N. coast. Rain at Low Heads, 0.94.

New Zealand.—Russell, bar. 29·60., wind S.W., fine; Wellington, bar. 30·00, wind E., fine; Bluff, bar. 30·10, wind S.E., showery.

New South Wales.—Generally fine and clear, fresh N.E. to S.E. winds, falling barometers, and smooth sea on coast. Cloudy, with rain, in S.W. Full details in map above.

Queensland.—Generally fine and clear, with S.E. winds and moderate sea. Rainfall—Brisbane, 0·31; Cape Moreton, 1·21.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, E., 13, overcast, light rain, temperature 63·; Lakes Entrance, S.E., 8, overcast, smooth sea, temperature 69; Cape Schanck, E.N.E., 23, mist and light rain, moderate sea, temperature 67.

New South Wales.—Albury, S.W., dull, temperature 84·; Cape St. George, N.E., 42, fine, moderate sea, temperature 73·; Clarence River, S.E., 14, fine, moderate sea, temperature 79·; Deniliquin, E., light rain; Dubbo, N.W., 28, showery, temperature 85·; Eden, E.N.E., 14, hazy and cloudy, fine, light E. sea, temperature 72·; Goulburn, E.N.E., fine, temperature 81·; Menindie, W., 42, fine, temperature 72·; Moruya, N.E., 28, cloudy, moderate sea, temperature 66·; Newcastle, N., 13, fine, smooth sea, temperature 73·; Port Macquarie, N.E., 28, fine, smooth sea, temperature 81·; Sydney, N.E., 13, fine, smooth sea, temperature 74·; Wentworth, S., dull, temperature 69·.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet 3 inches above summer level; at Hay, 2 feet above summer level; at Balranald, 3 feet below summer level. Murray: At Albury, 9 inches above summer level; at Euston, 3 feet 5 inches above summer level. Darling: At Wentworth, 2 feet 4 inches above summer level; at Pooncarie and Menindie, low; Wilcannia, 2 feet 6 inches above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR JANUARY 8.

Sun rises at 5, sets at 7.14; Moon, 7.37 a.m., 9.40 p.m.; Mercury, 3.23 a.m., 5.30 p.m.; Venus, 8.28 a.m., 9.34 p.m.; Mars, 10.41 p.m., 10.16 a.m.; Jupiter, 11.6 p.m., 11.16 a.m.; Saturn, 6.8 p.m., 4.2 a.m. New moon, 5th; full moon, 20th.

High water at Fort Denison, January 8, 10.2 a.m., 10.19 p.m.

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 8, 1884

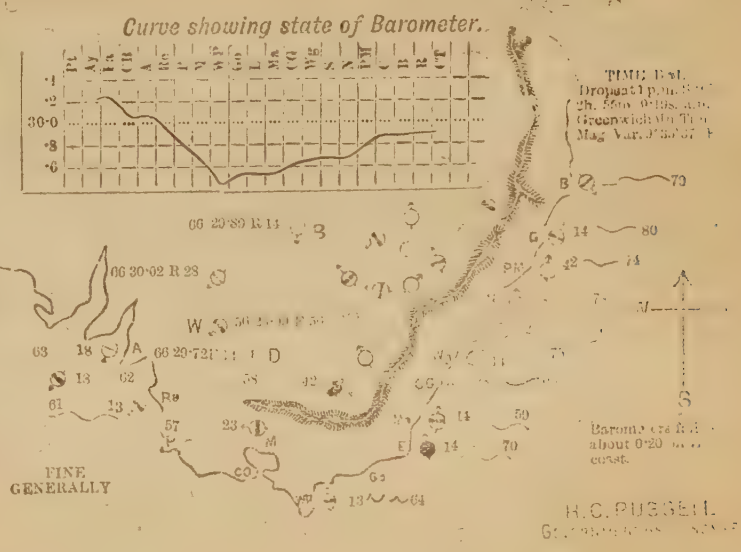
Stations	Wt	Mx	Mn	Rain
Albury	p	85	58	0·60
Armidale	b	88	64	0
Balranald	g	68	45	0·96
Bathurst	g	88	60	0·08
Bend'm'r	b	92	64	0
Bodalla	u	85	—	0·18
Bourke	b	101	61	0
C'md'n H.	c	81	72	0
C. St. Geo.	c	77	64	0
Carcoar	u	85	63	0·06
Casino	c	88	66	0·22
Cassilis	b	94	77	0
Clarence	c	83	66	0
C'nd'b'lin	u	—	43	0·11
Cooma	p	88	55	0·55
Coonab'n	c	96	69	0
C'nam ble	b	-	-	—
Cowra	u	95	63	0·03
Deniliq'n	g	78	51	0·88
Dubbo	c	94	59	0·01
Eden	r	76	66	0·36
Euston	g	61	52	1·85
Forbes	c	96	57	0
Gl'n Inn's	b	96	63	0
Goulburn	b	86	55	0·36
Grafton	g	91	71	0
Gulgong	c	88	70	0
Gunned'h	b	101	77	0
Hay	g	88	61	0
Hill End	u	-	-	0
Inverell	b	86	67	0
Kiandra	g	75	43	0·76
Lismore	c	84	69	0·02
Maitland	c	99	73	0
Marsdens	u	94	62	0·08
Menindie	u	76	58	0
Molong	g	90	60	0·03
Moree	c	92	73	0
Moruya	c	79	65	0·18
Moss Vale	u	84	62	0
Mt. Hope	u	80	60	0
M. Vict'ria	u	85	60	0
Mudgee	u	94	61	0
M'rr'mb'h	u	90	61	0·17
M'rr'r'ndi	c	91	76	0
Mus'lbr'k	b	103	69	0
Narrabri	u	108	75	0
Newcastle	c	83	69	0
Nowra	b	83	68	0
Orange	c	87	57	0
Picton	b	83	63	0
P. M'q'rie	b	83	67	0·84
P. St'ph'ns	c	85	69	0
Q'nbeyan	c	83	58	0·11
Quirindi	q	97	70	0
Singleton	b	95	74	0
Sydney	b	78	68	0
Tamw'rth	b	95	74	0
Taralga	p	81	52	0·40
Taree	c	91	63	0
T'nt'rfield	c	82	64	0
Wagga	c	88	57	0
Walcha	c	85	62	0
Walgett	u	105	63	0
W'ntw'rth	g	63	54	0
Wilcannia	c	—	—	0·10
W'll'ng'ng	b	81	67	0
Young	u	91	53	0·08

SYDNEY OBSERVATORY.
LATITUDE 33° 51' 41" S.; LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 25 years ... 49·65
Average for 9 years from Jan. 1st to November 30 47·85
Total Rainfall from January 1st to 8th ..... 0·036
Barometer is corrected to 32° Fah. and Mean Sea Level.

If it is calm, the symbol is used without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.

TIME BALL.
Dropped at 1 p.m.
Greenwich Mean Time.
Mag. Var. 9° 35' 37" E.



H. C. RUSSELL.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather, b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; ...

Western Australia.—Generally cloudy, with light easterly winds and smooth sea. Rainfall: Ashburton, 6·17.

South Australia.—Reports weather generally dull inland to Port Augusta, scattered clouds thence to Port Darwin; cool and dull in places; prevailing winds, S.W. to S., and fresh. Steady rain recorded in S.E.—Beachport, 2·00; M'Donnell Bay, 0·10; Robe, 0·31; and Tennant's Creek, 0·54.

Victoria.—Generally cloudy, with light W. and N. winds and low barometer, rather rough sea on coast at Wilson's Promontory. Rainfall: Melbourne, 1·83; Wilson's Promontory, 1·62; Lakes entrance, 0·49; Echuca, 1·56.

Tasmania.—Dull on N. coast, with fresh S.E. wind. Rainfall: Low Heads, 0.84.

New Zealand.—Russell, bar. 30·00., wind S.W., fine generally; Wellington, bar. 30·00, wind S.E., fine generally; Bluff, bar. 30·10, wind W., fine generally.

New South Wales.—Generally fine on coast, with light N.E. S.E. winds, falling barometer, and smooth sea. Unsettled inland, with rain in places, chiefly in the S. and S.W. (Full details given in map above.) Temora ... dull; rain, 0·27.

Queensland.—Generally cloudy, with S.E. and N.E. winds and moderate sea. Rainfall—Cape Moreton, 0·02; Brisbane, 0·24.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, W.S.W., 18, fine but cloudy, temperature ... Lakes Entrance, S.W. ... smooth sea, temperature 71°.

New South Wales.—Albury, W., raining, temperature ...; Cape St. George, S.E., 28, fine, smooth sea, temperature ...; Clarence River, N.E., 28, fine, moderate sea, temperature ...; Deniliquin, S.W., 42, fine, temperature 69°; Dubbo, W., 14, fine, temperature 78°; Goulburn, N.W., fine, temperature 70°; ... 28, fine, temperature 69°; Moruya, ... moderate sea, temperature 73°; Newcastle, ... smooth sea, temperature 82°; Port Macquarie, ... moderate sea, temperature 77°; Sydney, ... temperature 91°; ...

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet 5 inches above summer level; at Balranald, 1 foot 1 inch below summer level. ... Albury, 9 inches above summer level; at Euston, ... above summer level. Darling: ... Wentworth ... above summer level; at Wilcannia ... and Bourke ...

ASTRONOMICAL MEMORANDA FOR ...

Sun rises at 5.1, sets at 7.14; Moon, ... Mercury, ... a.m., 5.32 p.m.; Venus, ... Mars, ... Jupiter, ... Saturn, ... New moon, 5th; full moon, ... High water at Fort Denison, January 9: 10.35 ...

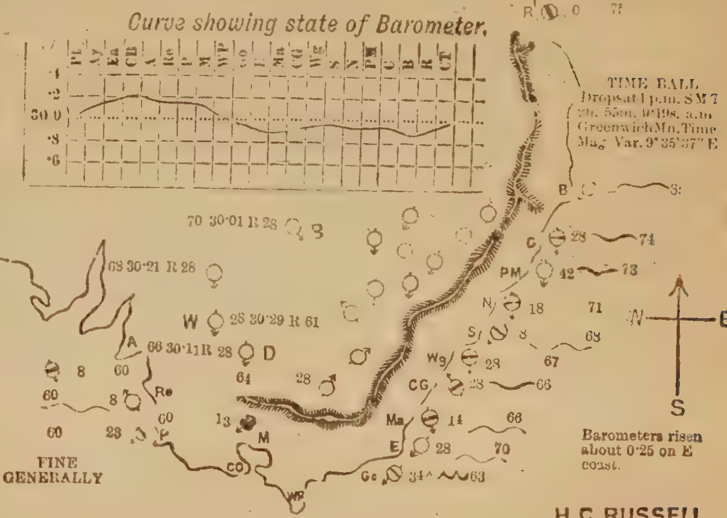
METEOROLOGICAL REPORTS AND MAP FOR JANUARY 9, 1886.

Stations	W.T.	Mx	Mn	R'in
Albury	c	66	53	0·10
Armidale	b	88	56	0
Balranald	b	73	44	0
Bathurst	b	77	49	0
Bend'm'r	b	85	51	0·09
Bodalla	c	85	-	
Bourke	b	89	59	0
C'md'n H.	b	82	68	0·20
C.St.Geo.	g	93	61	0
Carcoar	b	73	54	0
Casino	b	96	65	0·06
Cassilis	b	82	64	0
Clarence	c	92	65	0·36
C'nd'b'lin	–	–	–	–
Cooma	c	71	45	0
Coonab'n	b	89	56	0
C'nam'ble	b	-	-	-
Cowra	b	74	53	0
Deniliq'n	b	75	49	0
Dubbo	b	82	56	0
Eden	c	84	58	0
Euston	c	73	51	0
Forbes	b	67	54	0
Gl'n Inn's	b	88	54	0
Goulburn	b	71	45	0
Grafton	b	94	69	0·33
Gulgong	b	86	68	0
Gunned'h	b	97	66	0
Hay	b	91	50	0
Hill End	b	-	-	0
Inverell	b	88	58	0·20
Kiandra	c	60	37	0·38
Lismore	c	94	70	0
Maitland	u	102	63	0
Marsdens	b	70	58	0
Menindie	c	72	59	0
Molong	b	90	54	0
Moree	b	94	65	0
Moruya	c	81	57	0
Moss Vale	c	80	51	0
Mt. Hope	b	64	57	0
M.Vict'ria	c	81	46	0
Mudgee	b	85	58	0
M'rr'mb'h	b	68	52	0
M'rr'r'ndi	b	88	65	0
Mus'lbr'k	b	–	–	0·29
Narrabri	b	100	71	0
Newcastle	c	82	64	0·02
Nowra	–	–	–	–
Orange	b	74	47	0
Picton	g	88	60	0
P. M'q'rie	b	79	67	0·11
P.St'ph'ns	c	87	61	0·06
Q'nbeyan	b	68	52	0
Quirindi	b	92	60	0
Singleton	–	–	–	–
Sydney	g	92	65	0
Tamw'rth	b	91	60	0
Taralga	b	79	47	0
Taree	b	91	66	0·04
T'nt'rfield	o	92	59	0
Wagga	b	71	50	0·07
Walcha	b	83	48	0
Walgett	b	89	58	0
W'ntw'rth	b	72	52	0
Wilcannia	b	–	–	0
W'll'ng'ng	c	84	64	0
Young	b	70	46	0

SYDNEY OBSERVATORY.
Latitude 33° 51' 41" S.; Longitude 10h. 4m. 50 Sec. E.

Average Annual Rainfall for 27 years . . . . . . 49·962
Average for 27 years [illegible] November 29 [illegible]
Total Rainfall [illegible] . . . . . . 0·036
Barometers corrected to 32° Fah. and Mean Sea Level.

Fine, wind N. — Clo[udy], wind E. — T. storm, wind S. — Rain, wind W.
If it is calm, the symbol is used without the arrow.
Smooth sea. — Heavy sea. — Very heavy sea.



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla, CB, Cape Borda, A, Adelaide; Re, Robe; P, Portland; M, Melbourne, W P, Wilson's Promontory, Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay, Wg, Wollongong S, Sydney, N, Newcastle, P M, Port Macquarie; C, Clarence River B, Brisbane, R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light S.E. and S. winds and smooth sea. No rain.

South Australia.—Reports weather fine and cool, with scattered clouds. Prevailing winds, S.W. to S.E. and light. Smooth sea and rising barometer on coast. No rain recorded. No reports from inland or northern stations.

Victoria.—Generally cloudy, with fresh S.W. winds. Passing showers at Melbourne. High sea at Lake entrance. Barometer rising. Rainfall: Melbourne, 0·90; Portland, 0·04; Lake entrance, 0·07.

Tasmania.—Cloudy on N. coast, with fresh W.S.W. wind. Rainfall: Low Heads, 0.30.

New Zealand.—Russell, bar. 30·00, wind calm, dull; Wellington, bar. 30·10, wind S.E., fine; Bluff, bar. 30·10, wind E., fine.

New South Wales.—Generally fine and clear, with light southerly winds and rising barometers; cloudy on coast, with smooth sea and fresh S. wind. (Full details in map above.) [illegible] (not in map) reports—rain, 0·04; weather dull.

Queensland.—Generally fine, with S.E. and S.W. winds and calms. Dull at Rockhampton. Rainfall—Brisbane, 0·0[illegible]; Townsville, 2·13; Rockhampton, 0·07.

3 P.M. OBSERVATIONS.

New South Wales.—Albury, N.E., cloudy, temperature 70°; St. George, S.W., 14, fine, smooth sea, temperature 68°; [illegible] River, S., 20, fine, moderate sea, temperature 76°; Deniliquin, S., 14, fine, cloudy, temperature 62°; Dubbo, S.W., 14, fine, temperature 75°; Eden, W.S.W., fine, smooth sea, temperature 73°; Goulburn, calm, fine, temperature 70°; Menindie, S., 28, fine, temperature 70°; Newcastle, S.S.E., 20, fine, smooth sea, temperature 71°; Port Macquarie, S., 30, fine, smooth sea, temperature 70°; Sydney, S.S.E., 20, cloudy, smooth sea, temperature 70°; Wentworth, S., fine, temperature 65°; Walgett, calm, fine, temperature 84°.

Victoria.—Portland, S.W., 30, fine, smooth sea, temperature 67°; Wilson's Promontory, S.W., 30, fine, squally, moderate sea, temperature 63°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet above summer level; at Hay, 1 foot above summer level; at Balranald, 1 foot 3 inches below summer level. Murray: At Albury, 10 inches above summer level; at Euston 3 feet 11 inches above summer level. Darling: At Wentworth, 2 feet 9 inches above summer level; at Pooncarie, Menindie, Wilcannia and Bourke, low.

ASTRONOMICAL MEMORANDA FOR JANUARY 11.

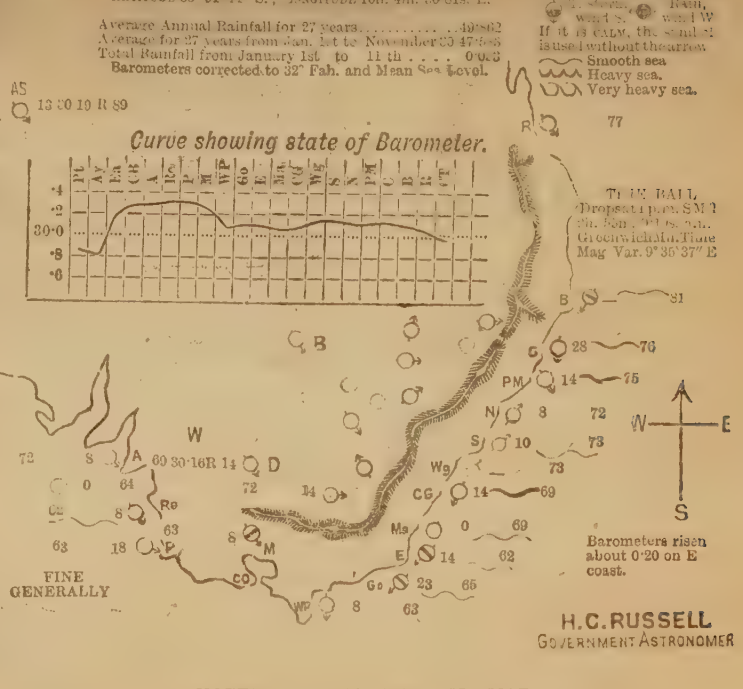
Sun rises at 5.3, sets at 7.13; Moon, 10.17 a.m., 10.27 p.m.; Mercury, 3.24 a.m., 5.35 p.m.; Venus, 8.25 a.m., 9.25 p.m.; Mars, 10.31 p.m., 10.7 a.m.; Jupiter, 10.54 p.m., 11.4 a.m.; Saturn, 5.55 p.m., 3.49 a.m. New moon, 5th; full moon, 20th.
High water at Fort Denison, January 9: 11.44 a.m., —p.m.

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 11, 1886.

Stations	wt	Mx	mn	R'in
Albury	b	86	53	0
Armidale	b	87	55	0
Balranald	b	94	49	0
Bathurst	b	84	52	0
Bend'm'r	b	87	52	0
Bodalla ..	g	76	–	0
Bourke ..	b	90	66	0
C'nd'n H.	b	73	61	0
C. St. Geo.	b	70	57	0
Carcoar ..	b	77	56	0
Casino ..	c	82	62	0
Cassilis ..	b	83	64	0
Clarence	c	90	65	0
C'nd'b'lin	b	86	62	0
Cooma ..	g	81	54	0
Coonab'n	b	92	53	0
C'nam ble	b	–	–	–
Cowra ..	b	95	56	0
Deniliq'n	b	85	45	0
Dubbo ..	b	95	67	0
Eden	g	75	60	0
Euston ..	b	90	42	0
Forbes ..	b	92	50	0
Gl'n Inn's	b	90	57	0
Goulburn	b	84	52	0
Grafton ..	c	82	65	0·13
Gulgong	b	86	62	0
Gunned'h	b	96	69	0
Hay	b	84	50	0
Hill End	b	–	–	0
Inverell ..	b	86	61	0
Kiandra	c	85	59	0
Lismore	–	–	–	–
Maitland	c	83	65	0
Marsdens	b	88	68	0
Menindie	–	–	–	–
Molong ..	b	91	54	0
Moree ..	b	96	68	0
Moruya ..	c	73	57	0
Moss Vale	b	74	54	0
Mt. Hope	b	71	55	0
M. Vict'ria	b	79	46	0
Mudgee ..	b	89	54	0
M'rr'mb'h	b	82	62	0
M'rr'r'ndi	b	86	67	0
Mus'lbr'k	b	–	–	0
Narrabri	g	101	71	0
Newcastle	b	74	64	0
Nowra ..	b	76	54	0
Orange ..	b	78	50	0
Picton ..	b	79	53	0
P. M'q'rie	b	77	56	0
P.St'ph'ns	c	80	58	0
Q'nbeyan	c	77	59	0
Quirindi	b	96	61	0
Singleton	b	86	61	0
Sydney ..	b	75	61	0
Tamw'rth	b	89	56	0
Taree ...	b	86	53	0
Taralga ..	b	80	58	0·07
T'nt'rfield	b	93	57	0
Wagga ...	c	90	51	0
Walcha ...	b	77	49	0
Walgett ...	b	99	65	0
W'ntw'rth	b	–	–	–
Wilcannia	b	–	–	0
W'll'ng'ng	b	79	68	0
Young ..	b	89	54	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51·4′ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years ..... 46·62
Average for 27 years from Jan. 1st to November 30 47·5·5
Total Rainfall from January 1st to 11th .... 0·03
Barometers corrected to 32° Fah. and Mean Sea Level.



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to the symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt. Perth, Ay. Albany, Ea. Eucla, C B. Cape Borda, A. Adelaide, Re. Robe; P. Portland; M. Melbourne, W P. Wilson's Promontory; Go. Gabo; E. Eden; Ma. Moruya, C G Jervis Bay, Wg. Wollongong, S. Sydney, N. Newcastle, P M. Port Macquarie, C. Clarence River, B. Brisbane, R. Rockhampton, Ct. Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Spring. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards, northerly winds preceding them and southerly following.

Western Australia.—Generally fine and clear, with light E. winds and calms, and smooth sea.

South Australia.—Generally fine, except over Mount Lofty ranges, where weather is dull. Prevailing winds, S. to S.E., and fresh. Light E. winds, rising barometers, and smooth sea. Rainfall: Port Darwin, 0·05.

Victoria.—Generally fine and clear, with light S.E. winds, rising barometers, and smooth sea. No rain.

Tasmania.—Fine and clear on N. coast, with fresh S.S.E. winds. No rain.

New Zealand.—Russell, bar. 30·30, wind N., fine; Wellington, bar. 30·20, wind N.W., fine; Bluff, bar. 30·00, wind N.E., showery.

New South Wales.—Generally fine and clear, with light S.E. to N.E. winds and calms, and rising barometers. Smooth sea and light N.E. winds on coast. Full details in map above.

Queensland.—Generally fine and clear, with light S.E. winds and smooth sea. Rainfall: Rockhampton, 0·13; Cooktown, 0·04.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 18, fine, temperature 66°; Portland, E.S.E., 28, fine, smooth sea, temperature 63°; Cape Otway, S.S.E., 8, fine, moderate sea, temperature 71°; Wilson's Promontory, S.W., 23, fine, temperature 64°; Lake Entrance, S.S.E., 8, fine, smooth sea, temperature 66°.

New South Wales.—Albury, E., 14, fine, temperature 84°; Cape St. George, E.N.E., 14, fine, smooth sea, temperature 75°, Clarence River, S.S.E., fine, smooth sea, temperature 80°; Deniliquin, S., fine, temperature 72°; Dubbo, calm, fine, temperature 82°; Eden, E.S.E., 28, fine, smooth sea, temperature 65°; Goulburn, E., dull, temperature 72°; Moruya, S.E., 28, fine, dull, and cloudy, smooth sea, temperature 69°; Newcastle, N.E., 8, fine, smooth sea, temperature 72°; Port Macquarie, S.E., 14, fine, smooth sea, temperature 81°; Sydney, E.N.E., fine, smooth sea, temperature 73°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet above summer level; at Hay, 1 foot above summer level; at Balranald, 1 foot 3 inches below summer level. Murray: At Albury, 1 foot 2 inches above summer level; at Euston, 5 feet 10 inches above summer level. Darling: At Wilcannia, 2 feet above summer level; at Bourke, 3 feet above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 12.

Sun rises at 5.3, sets at 7.13; Moon, 11.11 a.m., 11.1 p.m.; Mercury, 3.24 a.m., 5.36 p.m.; Venus, 3.24 a.m., 9.22 p.m.; Mars, 10.27 p.m., 10.4 a.m.; Jupiter, 10.50 p.m., 11.0 a.m.; Saturn, 5.51 p.m., 3.45 a.m. New moon, 3rd; full moon, 20th.
High water at Fort Denison, January 12: 12.1 a.m., 12.21 p.m.

METEOROLOGICAL ABSTRACT, DECEMBER, 1885, with results for same month during the preceding 26 years:—

—	Barometer at 32° Fah. and mn. sea lev'l.	Temperature in Shade.			Rainfall.	
		Mean Max.	Mean Min.	Mean.	Amount Inches.	No. of days.
Dec., 1885 ...	30·049	77·4	64·2	70·8	3·991	15
Average for 27 years	29·901	77·3	62·3	69·7	2·186	11·8
Monthly Extremes:						
Highest ...	30·106	79·8	64·2	72·0	7·804	18
Year ...	1871	1868	1885	1868	1870	1864
		& 1877				
Lowest ...	29·755	73·4	59·3	64·5	0·453	5
Year ...	1884	1860	1865	1859	1876	1874

Wind.—December, 1885: Prevailing direction, E.; average prevailing direction for 27 years, N.E. and E.N.E. December 1885; mean miles per hour, 11·0.

Temperature.—December, 1885: Highest shade temperature, 93·8, on the 8th; highest shade temperature in any December since 1859, 103·8, 22nd December, 1871; December, 1885, lowest shade temperature, 56·6, on the 1st and 2nd; lowest shade temperature in any December since 1859, 49·3, December 2nd, 1859.

Rainfall.—December, 1885: Greatest fall in one day, 0·928, on the 14th. Greatest fall in one day in any December since 1859, 2·604, December 29th, 1873.

H. C. RUSSELL, Government Astronomer.
Observatory, January 9, 1886.

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 12,

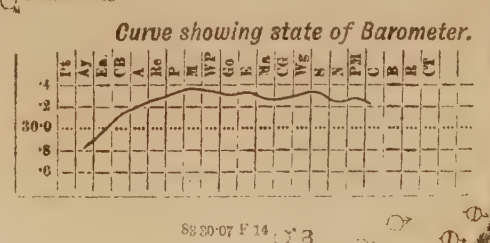
Stations	W'T	9 a.m.	M'n	Rain
Albury	b	90	73	0
Armidale	c	81	56	0·05
Balranald	b	91	63	0
Bathurst	g	88	66	0·01
Bend'n'r	u	90	58	0·26
Bodalla ..	p	75	—	0·30
Bourke ..	b	100	70	0
C'md'n H.	c	79	65	0
C. St. Geo.	c	78	57	0·05
Carcoar ..	–	—	—	–
Casino ..	u	87	59	0
Cassilis ..	c	85	64	0·04
Clarence	c	87	65	0
C'nd'b'lin	b	87	59	0
Cooma ..	b	79	49	0
Coonab'n	b	93	59	0·03
C'nambla	b	–	–	–
Cowra ..	b	96	57	0
Deniliq'n	b	87	52	0
Dubbo ..	–	—	–	–
Eden	c	75	55	0·01
Euston ..	b	90	54	0
Forbes ..	b	83	62	0
Gl'n Inn's	u	86	56	0·30
Goulburn	b	83	51	0·27
Grafton ..	c	84	62	0
Gulgong	c	84	63	0
Gunned'h	b	96	60	0·54
Hay	b	88	51	0
Hill End	h	—	–	0·05
Inverell ..	o	87	64	0·25
Kiandra	c	69	41	0
Lismore	u	85	65	0·02
Maitland	u	84	65	0·05
Marsdens	b	90	67	0
Menindie	b	85	67	0
Molong ..	b	92	59	0
Moree ..	b	97	65	0·04
Moruya ..	g	74	59	0·55
Moss Vale	u	75	53	0·19
Mt. Hope	b	78	69	0·41
M. Vict'ria	r	79	49	0·06
Mudgee ..	g	92	56	0
M'rr'mb'h	b	92	60	0
M'rr'mdi	u	84	65	0
Mus'br'k	c	—	–	0
Narrabri	b	103	74	0·11
Newcastle	g	74	62	0·04
Nowra ..	p	78	58	0·44
Orange ..	c	82	63	0
Picton ..	c	82	59	1·09
P. M'q'rie	c	73	66	0
P.St'ph'ns	p	80	63	0·30
Q'beyan	c	80	56	0·51
Quirindi	b	77	60	0
Singleton	u	85	66	0·05
Sydney ..	g	77	68	0·08
Tamw'rth	b	91	60	0·78
Taree ...	g	83	51	0·19
Taralga...	g	84	67	0·01
T'nt'rfield	c	82	58	0
Wagga ...	o	94	59	0
Walcha ...	o	83	50	0·04
Walgett...	b	101	66	0
W'ntw'rth	b	86	59	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	83	58	2·00
Young ...	b	94	56	0

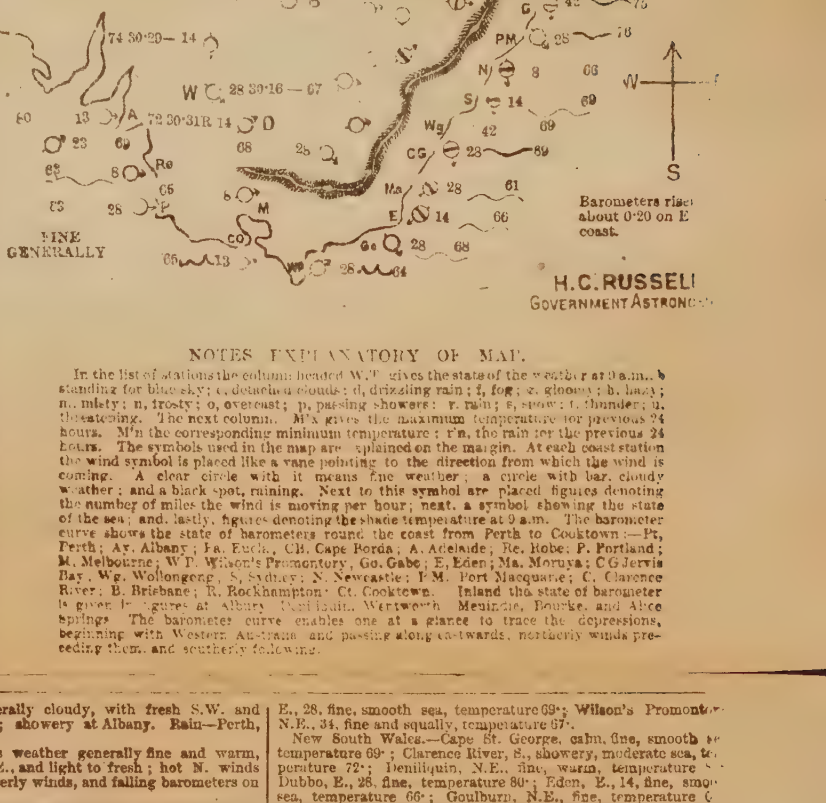
SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 12 th . . . . 0·130
Barometers corrected to 32° Fah. and Mean Sea Level.

Fine, wind S. Cloudy, wind E. Threatening, wind S. Rain, wind E. If it is CALM, the symbol is used without the arrow. Smooth sea. Heavy sea. Very heavy sea.





NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W'T gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'n, gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; Rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Fa, Eucla,; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay, Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given by figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy, with fresh S.W. and S.E. winds and smooth sea; showery at Albany. Rain—Perth, 0·02.

South Australia.—Reports weather generally fine and warm, prevailing winds S.E. to N.E., and light to fresh; hot N. winds at Eucla; moderate sea, easterly winds, and falling barometers on south coast. No rain.

Victoria.—Fine and clear throughout, with fresh easterly winds; steady barometers and rough sea; no rain; S.S.E. wind inland at Echuca, and calm at Omeo.

Tasmania.—Dull on N. coast, with fresh N.E. wind.

New Zealand.—Russell, bar. 30·30, wind calm, gloomy; Wellington, bar. 30·10, wind N.W., gloomy; Bluff, bar. 30·10, wind S.W., showery.

New South Wales.—Cloudy in the coastal and eastern districts generally, with fresh cold southerly winds and rising barometers. Fine inland, with light S.E. and N.E. winds and calm. Moderate rains, averaging half an inch, and heaviest on the coast, are reported, the heaviest being at Wollongong, viz., 2·0, and 0·78 at Tamworth, and 0·63 at Coonabarabran. Full details in map above. Camden (not in map) reports 0·60.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.E., 8, fine, temperature 81°; Cape Otway, E., 13, fine and hazy, rough sea, temperature 68.; Portland, E., 28, fine, smooth sea, temperature 69°; Wilson's Promontory, N.E., 34, fine and squally, temperature 67°.

New South Wales.—Cape St. George, calm, fine, smooth sea, temperature 69°; Clarence River, S., showery, moderate sea, temperature 72°; Deniliquin, N.E., fine, warm, temperature 8[illegible]; Dubbo, E., 28, fine, temperature 80°; Eden, E., 14, fine, smooth sea, temperature 66°; Goulburn, N.E., fine, temperature 6[illegible]; Menindie, calm, fine, temperature 61°; Moruya, S.E., 28, fine, smooth sea, temperature 73°; Port Macquarie, S., 28, showery, smooth sea, temperature 78°; Sydney, S.S.E., 13, dull, smooth sea, temperature 71°; Wentworth, S., fine, temperature 61°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet above summer level; at Ha[illegible] 1 foot above summer level; at Balranald, 9 inches below summer level. Murray: At Albury, 1 foot 2 inches above summer level; at Euston, 5 feet above summer level. Darling: At Wentworth, 3 feet 8 inches above summer level; at Pooncarie and Menindie, low; at Wilcannia, 2 feet stationary.

ASTRONOMICAL MEMORANDA FOR JANUARY 13.

Sun rises at 5.4, sets at 7.13; Moon, 12.7 p.m., 11.35 p.m.; Mercury, 3.24 a.m., 5.38 p.m.; Venus, 8.23 a.m., 9.19 p.m.; Mars, 10.24 p.m., 10.1 a.m.; Jupiter, 10.46 p.m., 10.56 a.m.; Saturn, 5.47 p.m., 3.41 a.m. New moon, 5th; full moon, 20th. High water at Fort Denison, January 13: 12.40 a.m., 1.3 p.m.

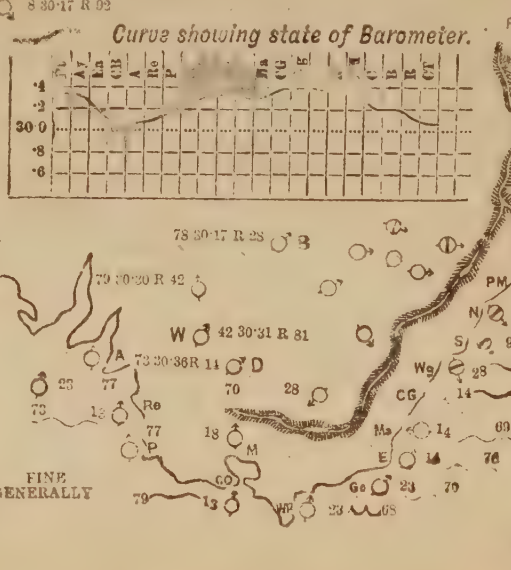
METEOROLOGICAL REPORTS AND MAP FOR JANUARY 13, 1886.

Stations	w	Mx	mn	r
Albury	b	92	59	0
Armidale	c	72	59	0·01
Balranald	l	103	56	0
Bathurst	c	73	51	0
Bend'm'r	g	75	56	0
Bodalla ..	c	73	—	0·62
Bourke ..	b	100	70	0
C'md'n H.	c	76	67	0
C. St. Geo.	c	74	64	0
Carcoar ..	b	72	51	0
Casino ..	u	80	62	0·25
Cassilis ..	c	74	55	0
Clarence	c	87	65	0·36
C'nd'b'lin	b	89	53	0
Coona ..	g	70	44	0
Coonab'n	b	84	55	0
C'nam ble	b	—	—	—
Cowra ..	b	96	56	0
Deniliq'n	b	95	59	0
Dubbo ..	b	87	56	0
Eden	b	76	60	0
Euston ..	b	95	65	0
Forbes ..	b	88	57	0
Gl'n Inn's	u	78	54	0
Goulburn	g	72	49	0
Grafton ..	g	85	65	0·05
Gulgong	b	72	58	0
Gunned'h	c	87	63	0
Hay	b	96	61	0
Hill End	b	—	—	0
Invercll ..	b	79	58	0
Kiandra	b	60	38	0
Lismore	p	76	67	0·58
Maitland	u	76	61	0
Manidens	b	89	68	0
Menindie	b	83	67	0
Molong ..	b	83	54	0
Moree ..	g	94	66	0
Moruya ..	c	73	55	0
Moss Vale	c	66	47	0
Mt. Hope	b	89	70	0
M. Vict'ria	u	68	46	0·05
Mudgee ..	b	81	51	0
M'rr'mb'h	b	83	56	0
M 'rr'r'ndi	c	74	61	0
Mus'br'k	c	—	—	0·12
Narrabri	b	99	69	0
Newcastle	c	79	61	0·01
Nowra ..	b	73	57	0·08
Orange ..	b	74	48	0
Picton ..	b	72	52	0
P. M'q'rie	c	79	63	0·55
P.St'ph'ns	u	77	62	0·43
Q'nbeyan	b	66	52	0
Quirindi	u	83	59	0
Singleton	b	80	65	0·70
Sydney ..	c	75	62	0
Tamw'rth	c	77	58	0
Taralga...	b	79	59	0
Taree ..		80	65	0·33
T'nt'rfield		—	—	—
Wagga ...	b	89	54	0
Walcha ..	g	65	56	0·05
Walgett ..	b	94	65	0
W'ntw'rth	b	95	68	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	77	59	0
Young ..	b	86	54	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years ..... 49·562
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 13 th .... 0·130
Barometers corrected to 32° Fah. and Mean Sea Level.

Fine, wind N. Clo wind E
T. storm, wind S. Rain, wind W
If it is CALM, the symbo. is used without the arrow
Smooth sea
Heavy sea.
Very heavy sea.



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Eu, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay, Wg, Wollongong; S, Sydney; N, Newcastle; P M Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Cc, Cooktown. Inland the state of barometer is given by figures at Albury Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them and southerly following.

Western Australia.—Generally fine and clear, with light S.E. and southerly winds and smooth. Rainfall—Albany, 0·02; Esperance Bay, 0·04.

South Australia.—Reports weather generally fine and hot; prevailing winds N.E. to N. and fresh; smooth sea, steady barometers, and light to fresh northerly winds on coast; hot wind and dusty at Adelaide. No rain.

Victoria.—Fine and clear, misty in places on coast, barometers steady, winds northerly and light to fresh, sea moderate (rather rough at Wilson's Promontory). No rain.

Tasmania.—Fine, but cloudy on N. coast, with fresh N.E. wind. No rain.

New Zealand.—Russell, barometer 30·30, wind N.W., fine; Wellington, barometer 30·23, wind S.E., fine, rain 0.38; Bluff, barometer 30·50, wind W., fine.

New South Wales.—Fine generally, with light N.E. and S.E. winds and rising barometers; cloudy on coast, with light S.E. winds, rising barometers, and moderate sea. (Full details in map).

Queensland.—Generally cloudy, with S.E. winds and calms and moderate sea. Rainfall: Brisbane, 0·66.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, S., 12, fine, smooth sea, temperature 72°; Clarence River, S.S.E., cloudy, heavy sea, temperature 77°; Deniliquin, N.E., fine, temperature 82°; Dubbo, E.N.E., 8, fine, temperature 78°; Eden, N.E., 14, fine, smooth sea, temperature 68°; Goulburn, E.N.E., 14, fine, temperature 68°; Menindie, N., 28, fine, temperature 85°; Moruya, N.E., 28, fine, smooth sea, temperature 72°; Newcastle, S.E., 8, fine, smooth, temperature 81°; Port Macquarie, S.E., 42, cloudy, fine, smooth sea, temperature 88°; Sydney, E., 13, scattered clouds, smooth sea, temperature 73°; Wentworth, N., 14, fine, hot, temperature 84°.

Victoria.—Melbourne, N.E., 13, fine, temperature 85°; Cape Otway, N.E., 8, fine, smooth sea, temperature 86.; Portland, E., 18, fine, slight sea, temperature 79°; Wilson's Promontory, N.N.E., 23, squally, hazy, moderate sea, temperature 76°; Lake Entrance, E., 8, fine, sultry, smooth sea, temperature 71°.

STATE OF RIVERS.

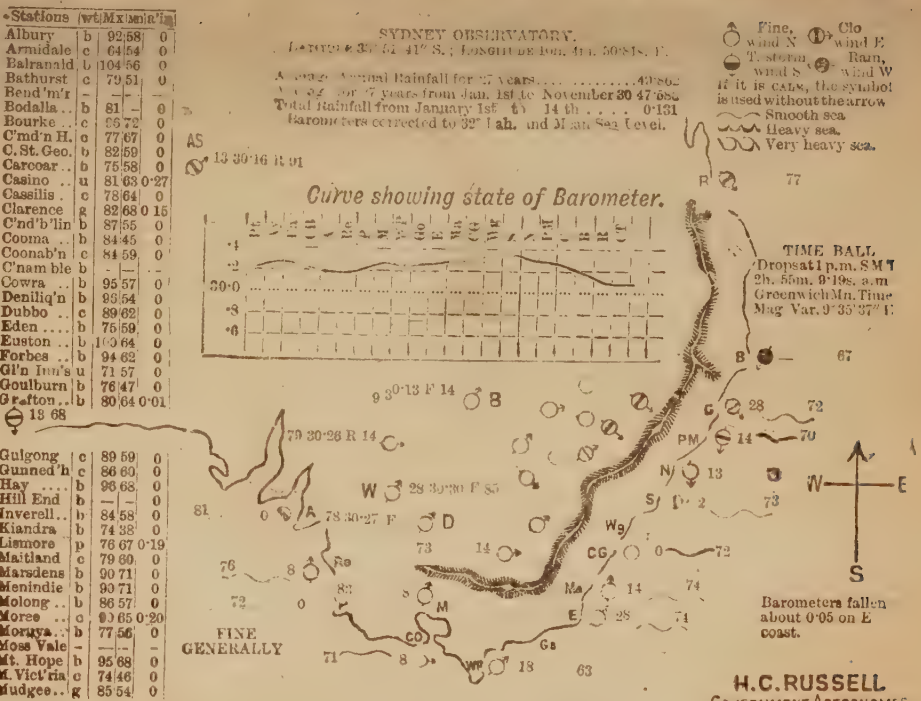
Murrumbidgee: At Wagga, 2 feet 10 inches above summer level; at Hay, summer level; at Balranald, 7 inches below summer level. Murray: At Albury, 1 foot 2 inches above summer level; at Euston, 5 feet 2 inches above summer level. Darling: At Wentworth, 3 feet 11 inches above summer level; at Pooncarie and Menindie, low; at Wilcannia, 2 feet above summer level; at Bourke, 2 feet 9 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 14.

Sun rises at 5.5, sets at 7.13; Moon, 1.4 p.m., —— p.m.; Mercury, 3.25 a.m., 5.39 p.m.; Venus, 8.23 a.m., 9.17 p.m.; Mars, 10.20 p.m., 9.58 a.m.; Jupiter, 10.43 p.m., 10.53 a.m.; Saturn, 5.42 p.m., 3.36 a.m. New moon, 5th; full moon, 20th.
High water at Fort Denison, January 14: 1.25 a.m., 1.54 p.m.

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 14, 1886.

Stations	wt	Mx	Mn	r'n
Albury	b	92	58	0
Armidale	c	64	54	0
Balranald	b	104	56	0
Bathurst	c	79	51	0
Bend'm'r	–	—	—	–
Bodalla ..	b	81	—	0
Bourke ..	c	96	72	0
C'md'n H.	c	77	67	0
C. St. Geo.	b	82	59	0
Carcoar ..	b	75	58	0
Casino ..	u	81	63	0·27
Cassilis ..	c	78	64	0
Clarence	g	82	68	0·15
C'nd'b'lin	b	87	55	0
Cooma ..	b	84	45	0
Coonab'n	c	84	59	0
C'nam ble	b	-	—	–
Cowra ..	b	95	57	0
Deniliq'n	b	93	54	0
Dubbo ..	c	89	62	0
Eden	b	76	59	0
Euston ..	b	100	64	0
Forbes ..	b	94	62	0
Gl'n Inn's	u	71	57	0
Goulburn	b	76	47	0
Grafton ..	b	80	64	0·01
Gulgong	c	89	59	0
Gunned'h	c	86	60	0
Hay	b	96	68	0
Hill End	b	—	—	–
Inverell ..	b	84	58	0
Kiandra	b	74	38	0
Lismore	p	76	67	0·19
Maitland	c	79	60	0
Marsdens	b	90	71	0
Menindie	b	90	71	0
Molong ..	b	86	57	0
Moree ..	c	90	65	0·20
Moruya ..	b	77	56	0
Moss Vale	–	—	—	–
Mt. Hope	b	95	68	0
M. Vict'ria	c	74	46	0
Mudgee ..	g	85	54	0
M'rr'mb'h	b	87	58	0
M'rr'r'nd i	o	75	59	0
Mus'lbr'k	b	—	—	–
Narrabri	b	90	65	0
Newcastle	b	79	64	0
Nowra ..	b	77	56	0
Orange ..	c	76	50	0
Picton ..	b	72	59	0
P. M'q'rie	u	78	63	0·15
P. St'ph'ns	b	80	58	0
Q'nbeyan	b	74	55	0
Quirindi	o	82	59	0
Singleton	b	80	61	0
SYDNEY ..	c	77	60	0
Tamw'rth	c	78	60	0
Taralga...	b	80	52	0
Taree ..	g	82	65	0·02
T'nt'rfield	b	70	56	0
Wagga ...	u	93	59	0
Walcha ...	b	67	52	0·02
Walgett...	c	93	68	0
W'ntw'rth	b	89	69	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	80	57	0
Young ..	b	90	54	0



H.C. RUSSELL.
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ad, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Fine generally, with light N.E. wind and smooth sea; cloudy in places, but no rain.

South Australia reports weather generally fine and warm, with scattered clouds; prevailing winds northerly and light, but fresh in places. Smooth sea and rising barometers on S. coast. Rainfall—Port Darwin, 0·17; hot inland.

Victoria.—Fine and clear, and warm, with light N.E. winds and rising barometers; smooth sea on coast. No rain.

Tasmania.—Hazy on north coast, with light N. wind.

New Zealand.—Fine generally; Wellington, barometer, 30·40; N.E. winds prevailing over N. Island, and N.W. wind over S. Island.

New South Wales.—Generally fine and clear, with light S.E. to S.W. winds and falling barometers. Smooth sea on coast, with cloudy weather in places. Showery at Lismore. Full details in map above.

Queensland.—Fine and clear and sultry north of Rockhampton, winds S.E. throughout, sea smooth. Showery at Brisbane; rain, 0·05. Sky half clouded at Rockhampton, but no rain.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 18, fine, temperature 83°; Cape Otway, E.N.E., 8, sultry, slight sea, temperature 70°; Portland, S.E., 23, fine, smooth sea, temperature 77°; Wilson's Promontory, N.E., 13, hazy, sultry, slight sea, temperature 78°; Lake Entrance, E., 8, dense fog, sultry, smooth sea, temperature 69°.

New South Wales.—Sydney, E.N.E., 8, fine, smooth sea, temperature 74°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 9 inches above summer level; at Hay, summer level; at Balranald, 1 foot 6 inches above summer level. Murray: At Albury, 1 foot 6 inches above summer level; at Euston, 5 feet 4 inches above summer level. Darling: At Wentworth, 4 feet 1 inch above summer level; at Pooncarie, 9 inches above summer level; at Menindie, low; at Wilcannia, 2 feet above summer level; at Bourke, 4 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 15.

Sun rises at 5.6, sets at 7.12; Moon, 2.4 p.m., 12.12 a.m.; Mercury, 3.27 a.m., 5.41 p.m.; Venus, 8.21 a.m., 9.13 p.m.; Mars, 10.16 p.m., 9.54 a.m.; Jupiter, 10.39 p.m., 10.49 a.m.; Saturn, 5.38 p.m., 3.32 a.m. New moon, 5th; full moon, 20th.

High water at Fort Denison, January 15: 2.24 a.m., 2.59 p.m.

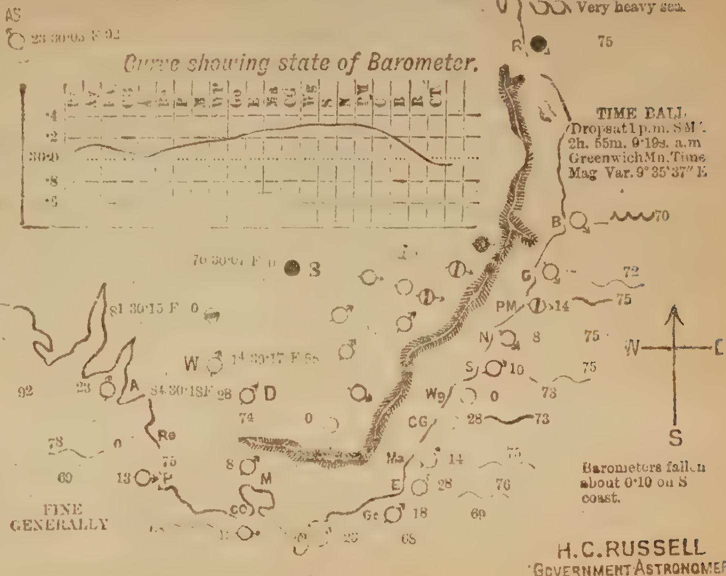
METEOROLOGICAL REPORTS AND MAP FOR JANUARY 15, 1886.

Stations	w'r	Mx.	m'n	R'in
Albury	b	98	54	0
Arm'dale	o	65	55	0
Balranald	b	111	60	0
Bathurst	b	85	64	0
Bend'm'r	u	75	61	0
Bodalla..	c	81	—	0
Bourke ..	r	96	64	0
C'md'n H.	c	76	65	0·33
C. St. Geo.	c	79	61	0
Carcoar..	b	78	61	0
Casino ..	r	75	62	0·36
Cassilis ..	b	80	65	0
Clarence	g	72	69	0
C'nd'b'lin	b	87	58	0
Cooma ..	b	91	44	0
Coonab'n	g	86	62	0
C'nam'ble	b	—	—	—
Cowra ..	b	100	66	0
Deniliq'n	b	103	64	0
Dubbo ..	c	94	63	0
Eden	c	78	62	0
Euston ..	b	105	62	0
Forbes ..	b	96	65	0
Gl'n Inn's	u	68	55	0
Goulburn	b	86	57	0
Grafton..	u	92	68	0·02
Gulgong	b	80	61	0
Gunned'h	b	91	68	0
Hay ..	b	101	68	0
Hill End	b	—	—	0
Inverell..	o	80	65	0
Kiandra	b	78	38	0
Lismore	p	72	67	0·18
Maitland	c	82	60	0
Marsdens	b	90	72	0
Menindie	c	94	72	0
Molong ..	b	90	57	0
Moree ..	u	93	68	0
Moruya..	c	78	59	0
Moss Vale	c	78	57	0
Mt. Hope	b	87	72	0
M. Vict'ria	c	82	53	0
Mudgee..	b	90	55	0
M'r'mb'h	b	92	52	0
M'rr'r'ndi	c	83	65	0
Mus'lbr'k	b	—	—	0
Narrabri	o	94	70	0
Newcastle	c	76	65	0
Nowra ..	b	81	58	0
Orange ..	b	79	53	0
Picton ..	b	79	60	0
P. M'q'rie	c	78	62	0
P. St'ph'ns	c	83	59	0
Q'nbeyan	b	80	57	0
Quirindi	o	91	61	0
Singleton	b	80	65	0
Sydney ..	c	78	65	0
Tamw'rth	c	86	64	0
Taralga...	b	81	53	0
Taree ..	c	80	64	0
T'nt'rfield	r	69	56	0·10
Wagga ...	b	100	63	0
Walcha ...	g	77	59	0
Walgett.	c	95	71	0
W'ntw'rth	b	102	65	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	82	59	0
Young ..	b	96	68	0

SYDNEY OBSERVATORY.
[illegible] 33° 51' 41" S.; Longitude 10h. 4m. 50·81s. E.

[illegible] Annual Rainfall for 27 years .... [illegible]
Average for 27 years from Jan. 1st to November 30 [illegible]
Total Rainfall from January 1st to 15th .... 0·131
Barometers corrected to 32° Fah. and Mean Sea Level.

Fine, wind N. — Cloudy, wind E. — Thunderstorm, wind S. — Rain, wind W.
If it is CALM, the [illegible] is used without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.'r gives the state of the weather at 9 a.m., b [illegible] blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; [illegible]; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, [illegible]. The next column, Mx gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Al. Albany; Eu. Eucla; CB. Cape Borda; A. Adelaide; Re. Robe; P. Portland; M. Melbourne; W. Wilson's Promontory; Go. Gabo; E. Eden; Ma. Moruya; C G Jervis Bay; Wg. Wollongong; S. Sydney; N. Newcastle; P M Port Macquarie; C. Clarence River; B. Brisbane; R. Rockhampton; Ct. Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Cloudy, with light N.E. to S.E. winds and smooth sea. No rain.

South Australia reports weather generally fine and hot, with scattered clouds, prevailing winds N.E. to N., and fresh; smooth sea and falling barometers on S. coast. Rainfall: Streaky Bay, 0·05.

Victoria.—Fine and clear with light easterly winds, falling barometers and smooth sea. No rain.

Tasmania.—Fine on north coast, with light N.N.E. wind.

New Zealand.—Russell, barometer 30·29, wind N.E., showery; Wellington, barometer, 30·10, wind N.W., fine; Bluff, barometer 30·16, wind N.W., fine.

New South Wales.—Generally fine, but cloudy; dull on high lands in New England district, and in places on coast. Raining at Bourke and Tenterfield, and showery at Lismore. Smooth sea, falling barometer, and light N.E. to S.E. winds on coast. Full details in map above.

Queensland.—Generally cloudy, with S.E. winds and smooth sea; light rain falling at Rockhampton. Rainfall: Brisbane, 2·43; Rockhampton, 0·30.

3 P.M. OBSERVATIONS.

New South Wales.—Albury, calm, fine, temperature 85°; Cape St. George, N.E., 14, fine, smooth sea, temperature 62°; Clarence River, S., 28, raining, moderate sea, temperature 70°; Deniliquin, N.E., 14, fine, temperature 91°; Dubbo, N.E., 14, fine, temperature 82°; Goulburn, E.N.E., 14, fine, temperature 72°; Moruya, N.E., 42, fine, temperature 76°; Newcastle, N.E., 14, fine, smooth sea, temperature 72°; Port Macquarie, N.E., 14, fine, smooth sea, temperature 70°; Sydney, E.N.E., 12, cloudy, smooth sea, temperature 75°; Wentworth, calm, fine, temperature 95°; Walgett, N.E., cloudy, temperature 74°.

Victoria.—Melbourne, N., 8, fine, temperature 92°; Cape Otway, E., 13, fine, hazy, moderate sea, temperature 71°; Portland, E.S.E., 23, fine, smooth sea, temperature 73°; Wilson's Promontory, N.E., 18, squally, sultry, slight sea, temperature 74°; Lake Entrance, E., 8, sultry, smooth sea, temperature 74°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 8 inches above summer level; at Hay, summer level. Murray: At Albury, 1 foot 3 inches above summer level; at Euston, 5 feet 6 inches above summer level. Darling: At Wentworth, 4 feet 2 inches above summer level; at Pooncarie, 12 inches above summer level; at Wilcannia, 2 feet above summer level; at Bourke, 4 feet 10 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 16.

Sun rises at 5.7, sets at 7.12; Moon, 3.6 p.m., 12.52 a.m.; Mercury, 3.29 a.m., 5.43 p.m.; Venus, 4.30 a.m., 9.10 p.m.; Mars, 10.13 p.m., 9.51 a.m.; Jupiter, 10.35 p.m., 10.45 a.m; Saturn, 5.34 p.m., 3.28 a.m. New moon, 5th; full moon, 20th.
High water at Fort Denison, January 16: 3.35 a.m., 4.15 p.m.

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 18, 1886.

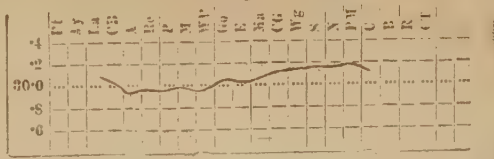
Stations	wt	Mx	m	R'in
Albury		97	70	0
Armidale	a	70	56	0
Balranald		111	66	0
Bathurst		85	59	0·42
Bend'm'r	u	77	60	0·02
Bodalla ..	g	81	—	0
Bourke ..	b	84	54	0·24
C'md'n H.	–	—	—	—
C. St. Geo.	g	78	65	0
Carcoar ..	p	78	61	0·37
Casino ..	g	72	64	0·45
Cassilis ..	c	80	66	0
Clarence	g	77	67	0·44
C'nd'b'lin	r	89	54	1·23
Cooma ..	g	91	47	0
Coonab'n	p	88	63	0·59
C'nam ble	g	–	–	–
Cowra ..	d	95	69	0
Deniliq'n	u	105	68	0
Dubbo ..	p	93	62	0·48
Eden	c	78	65	0
Euston ..	b	105	68	0
Forbes ..	r	94	63	0·41
Gl'n Inn's	u	66	57	0·03
Goulburn	u	82	58	0
Grafton ..	u	79	69	0
Gulgong	c	81	62	0·18
Gunned'h	c	86	69	0·19
Hay	g	101	71	0
Hill End	r	—	–	0·78
Inverell ..	o	76	63	0
Kiandra	c	76	50	0
Lismore	–	—	—	—
Maitland	g	86	63	0
Marsdens	p	91	71	0·66
Menindie	b	94	71	0
Molong ..	r	83	60	0·75
Moree ..	c	89	54	0·33
Moruya ..	c	81	62	0
Moss Vale	r	77	58	0·05
Mt. Hope	u	81	69	0·22
M.Vict'ria	p	79	73	0·10
Mudgee ..	u	90	58	0·21
M'rr'mb'h	–	—	—	—
M'rr'r'ndi	u	82	66	0·10
Mus'lbr'k	g	—	–	0
Narrabri	o	89	51	0·15
Newcastle	c	80	67	0
Nowra ..	–	—	—	—
Orange ..	r	81	56	0·88
Picton ..	d	81	65	0
P. M'q'rie	g	80	60	0
P.St'ph'ns	u	82	64	0
Q'nbeyan	b	79	63	0
Quirindi	u	85	64	0·04
Singleton	c	82	68	0
SYDNEY ..	d	78	68	0·02
Tamw'rth	c	82	65	0·05
Taralga...	r	89	57	0
Taree ..	g	83	66	0
T'nt'rfield	u	63	57	0·15
Wagga ...	b	92	73	0
Walcha ...	d	78	58	0·02
Walgett...	g	85	64	0·25
W'ntw'rth	b	101	72	0
Wilcannia	c	—	—	0
W'll'ng'ng	c	82	66	0·01
Young ..	g	92	67	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·8s. E.

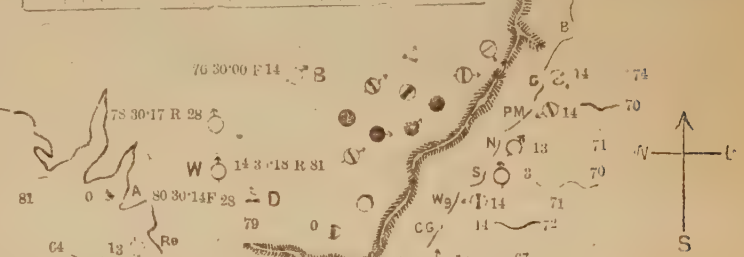
Average Annual Rainfall for 27 years..... ..49·63
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 16th .... 0·151
Barometers corrected to 32° Fah. and Mean Sea Level.

Fine, wind N. Cloudy, wind E.
T. storm. Rain.
If it is calm, the symbol is used without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.

Curve showing state of Barometer.



TIME BALL
Dropsat 1 p.m. S.M.T
2h. 55m 0·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35′ 37″ E.



Barometers fall in about 0·14 on E coast.

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.; b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given by figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia reports weather generally fine and warm, with scattered clouds and light variable winds and calms; barometer rising slowly. Rainfall: Streaky Bay, 0·10.

Victoria.—Generall, fine, hazy, and sultry. Prevailing winds N.E. to N.W. and light; smooth sea and falling barometers on coast. No rain. Fine, but cloudy, with light N. wind and rising barometer inland at Echuca.

Tasmania.—Dull on N. coast with light south wind.

New Zealand reports weather generlly fine and clear, with barometers standing at about 30·20; light S. winds prevail over North Island, and light N. winds over South Island.

New South Wales.—Cloudy generally. Very general rains have fallen on and west of the Mountains, extending westward as far as the Darling, and north-west as far as Walgett and Moree. At 9 a.m. rain was still falling over the districts surrounding the watershed of the Lachlan, extending along the river to Condobolin, and thence north over the Bogan, Macquarie, and Castlereagh rivers, and as far as Coonabarabran. Light misty rain on the Mountains from Walcha south to Taralga. Prevailing winds S.E. on Mountains, S.E. and calm W. of Mountains, and northerly on coast. Sea smooth and moderate; barometers falling.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, N., 30, fine, smooth sea, temperature 71°; Clarence River, S.E., 10, fine, moderate sea, temperature 76°; Deniliquin, N., 10, fine, warm temperature 91°; Dubbo, W., showery, temperature 75°; Eden, N., 14, cloudy, little sea, easterly, temperature 75°; Goulburn, E.N.E., 10, fine, temperature 72°; Menindie, N.E., 20, fine, hot, temperature 85°; Moruya, N.E., 30, fine, smooth sea, temperature 73°; Newcastle, N.E., 20, cloudy, smooth sea, temperature 71°; Port Macquarie, N.E., 28, cloudy, smooth sea, temperature 73°; Sydney, N.E., 20, fine, smooth sea, temperature 72°; Wentworth, N.E., 11, fine, sultry, temperature 84°; Walgett, calm, thunder and lightning to west, temperature 82°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 6 inches above summer level; at Hay, summer level; at Balranald, 1 foot above summer level. Murray: At Albury, 1 foot 3 inches above summer level; at Euston, 5 feet 4 inches above summer level. Darling: At Wentworth, 3 feet 11 inches above summer level; at Pooncarie, 10 inches above summer level; at Menindie, low; at Wilcannia, 1 feet 6 inches above summer level; at Bourke, 5 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 18.

Sun rises at 5.9, sets at 7.12; Moon, 5.13 p.m., 2.30 a.m.; Mercury, 3.32 a.m., 5.47 p.m.; Venus, 8.17 a.m., 9.3 p.m.; Mars, 10.6 p.m., 9.44 a.m.; Jupiter, 10.27 p.m., 10.57 a.m.; Saturn, 5.26 p.m., 3.20 a.m. New moon, 5th; full moon, 20th.

High water at Fort Denison, January 18: 6.12 a.m., 6.43 p.m.

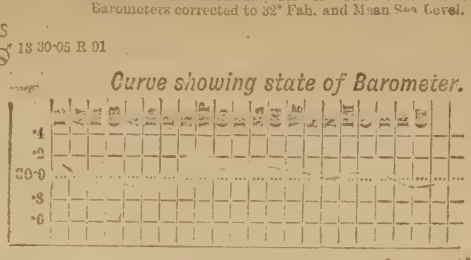
METEOROLOGICAL REPORTS AND MAP FOR JANUARY 18, 1880

Stations		M'x	M'n	R'n
Albany	b	102	61	0
Armidale	b	82	56	0·15
Bahrain	d	b	1	57	0
Bathurst	g	86	57	0·25
Bend'm'r	c	86	57	1·25
Bodalla	g	87	—	0
Bourke	b	99	60	0
C'md'n H.	b	78	69	0
C. St. Geo.	b	90	62	0
Carcoar	b	80	61	0·55
Casino	a	89	63	0·97
Cassilis	c	85	68	0·48
Clarence	c	76	68	0·89
C'nd'b'ne	b	83	59	0·75
Cooma	c	85	53	0
Coonab'n	b	88	56	0·93
C'nambleen	b	—	—	0·60
Cowra	b	97	67	0·12
Deniliq'n	b	104	58	0
Dubbo	b	93	64	0·45
Eden	c	84	62	0
Euston	b	107	64	0
Forbes	b	91	62	0
Gl'n Inn's	b	85	56	0·14
Goulburn	c	87	54	0
Grafton	b	89	64	0·23
Gulgong	b	80	60	0·64
Gunned'h	b	92	68	0·32
Hay	b	101	67	0
Hill End	b	—	—	0·35
Inverell	c	84	63	0
Kiama	b	72	48	0
Lismore	p	76	69	0·36
Mait'd	u	94	67	0·18
Manilla	b	81	73	0·63
Meanjin	c	95	75	0
Molong	b	—	—	—
Moree	c	—	70	0·32
Moruya	c	81	—	0
Moss Vale	d	76	59	0·03
Mt. Hope	b	85	78	0
M. Victoria	c	82	54	0
Nundle	—	—	—	—
Parkes	b	95	66	0·01
P'rr'r'ndi	u	84	66	0·04
Mus'lbr'k	g	—	—	0·58
Narrabri	b	94	60	0·07
Newcastle	g	81	68	0·14
Nowra	b	86	65	0·01
Orange	b	81	55	0·02
Picton	u	86	60	0
P. M'q'rie	c	80	64	0
P. St'ph'ns	u	85	66	0·25
Q'nbeyan	b	84	70	0·10
Quirindie	u	90	62	0·52
Singleton	u	88	69	1·33
Sydney	g	87	68	0·01
Tamw'rth	o	87	59	0·60
Taralga	g	83	53	0
Taree	c	87	68	0·33
T'nt'rfield	c	88	61	0·56
Wagga	b	100	70	0
Walcha	t	75	56	3·64
Walgett	b	97	70	0
W'ntw'rth	c	103	72	0
Wilcannia	b	—	—	0
Wil'ag'ng	b	85	67	0
Young	b	99	61	0·01

SYDNEY OBSERVATORY.

[illegible]

Average Annual Rainfall for 27 years ..... 49·83
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 18th .... 0·157
Barometers corrected to 32° Fah. and Mean Sea Level.



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W. [illegible] the state of the weather at 9 a.m., standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CT [illegible]; Ad, Adelaide; Ro, Robe; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing eastwards; neither winds [illegible] preceding them and [illegible] following.

Western Australia.—Generally cloudy, with light S.E. winds, smooth sea, and rising barometers. Rainfall Albany 0·03, Esperance Bay 0·14.

South Australia reports weather generally sultry and hot, with scattered clouds; dull in places; prevailing wind N.E. to N. and fresh; thunderstorms, with rain in places on 17th, heaviest at Bordertown (0·41) and Port Darwin, rain 0·46, Port Augusta 0·04, Adelaide 0·08, and Robe 0·01.

Victoria.—Generally cloudy, with light N.E. wind, falling barometers, and moderate sea; fine inland at Echuca and Omeo; no rain.

Tasmania.—Dull on north coast, with fresh S.S.E. wind.

New Zealand.—Russell, barometer 3·30, S. over South Island; Wellington, barometer 30·20, wind S.E., fine; Bluff, barometer 3·20, wind S.E., fine.

New South Wales.—Generally fine, scattered clouds in places. Smooth sea, falling barometers, and strong S. wind on coast. Fine inland. Walcha reports violent thunderstorm; rain, 3·64 inches. Full details in map above. Temora (not in map) reports rain 0·10, fine and clear.

Queensland.—Generally cloudy and unsettled, with S.E. and N.E. winds and moderate sea. Rainfall: Brisbane, 0·16; Cape Moreton, 0·60; Rockampton, 0·01.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N.N., 13, fine, but cloudy, temperature 91°; Cape Otway, E.N.E., 13, fine, but cloudy, smooth sea, temperature 72°; Portland, E., 8, gloomy, moderate sea, temperature 70°; Wilson's Promontory, N.E., 23, squally, moderate sea, temperature 71°.

New South Wales.—Cape St. George, S., 42, fine, smooth sea, temperature 73°; Clarence River, S.E., 14, fine, smooth sea, temperature 80°; Deniliquin, N., fine, temperature 94°; Dubbo, S.S.E., 14, fine, temperature 81°; Eden, E.N.E., 14, fine, smooth sea, temperature 69°; Goulburn, E.N.E., 14, fine, temperature 74°; Menindie, calm, dull, temperature 90°; Moruya, N.E., 28, fine, smooth sea, temperature 74°; Newcastle, S., 28, showery, smooth sea, temperature 73; Port Macquarie, S., 40, fine, smooth sea, temperature 83°; Sydney, S., 20, fine, smooth sea, temperature 77°; Wentworth, N.E., 14, dull, temperature 96°; Walgett, calm, fine, temperature 95°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 3 inches above summer level; at Hay, summer level; at Balranald, 1 foot above summer level. Murray: At Albury, 8 inches above summer level; at Euston, 5 feet above summer level. Darling: At Wentworth, 4 feet above summer level; at Pooncarie, 8 inches above summer level; at Wilcannia, low; at Bourke, 2 feet 4 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 19.

Sun rises at 5·10, sets at 7.11; Moon, 6.12 p.m., 3.27 a.m.; Mercury, 3.34 a.m., 5.49 p.m.; Venus, 8.15 a.m., 8.39 p.m.; Mars, 10.2 p.m., 9.40 a.m.; Jupiter, 10.23 p.m., 10.33 a.m.; Saturn, 5.22 p.m., 3.16 a.m. Full moon, 20th.

High water at Fort Denison, January 19: 7.13 a.m., 7.41 p.m.

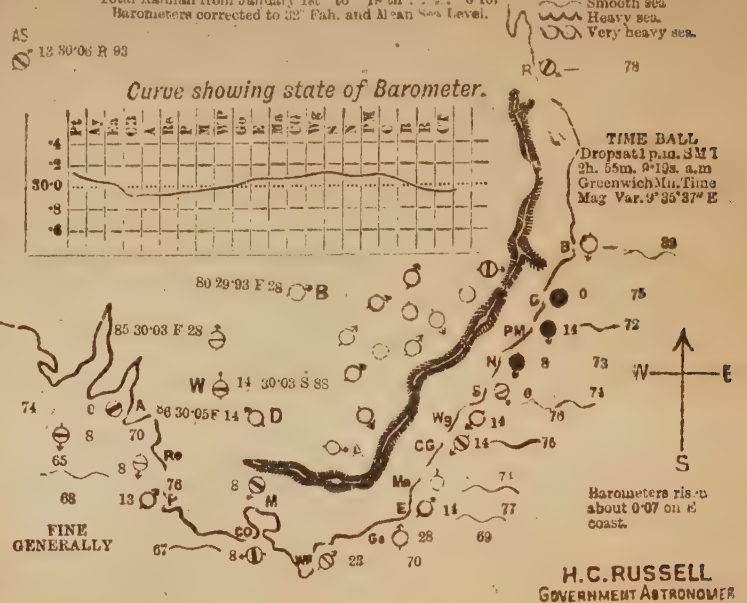
METEOROLOGICAL REPORTS AND MAP FOR JANUARY 19, 1886.

Stations	wt	Mx	Mn	R'in
Albury	c	101	66	0
Armidale	c	80	60	0
Balranald	c	106	59	0
Bathurst	b	85	56	0
Bend'm'r	u	85	58	0·02
Bodalla ..	b	95	–	0
Bourke ..	b	106	63	0
C'md'n H.	c	80	70	0·78
C. St. Geo.	c	77	65	0
Carcoar ..	b	80	68	0
Casino ..	b	89	64	0
Cassilis ..	c	83	69	0
Clarence	r	86	68	0
C'nd'b'lin	b	89	59	0
Cooma ..	b	88	51	0
Coonab'n	b	87	59	0
C'nam ble	b	–	–	0
Cowra ..	b	99	62	0
Deniliq'n	c	108	65	0
Dubbo ..	b	96	63	0
Eden	b	81	64	0
Euston ..		108	66	0
Forbes ..	b	95	67	0
Gl'n Inn's	g	85	60	0
Goulburn	b	87	57	0
Grafton ..	c	82	63	0
Gulgong	b	83	64	0
Gunned'h	–	–	–	–
Hay	b	105	61	0
Hill End	b	–	–	0
Inverell ..	b	86	63	0
Kiandra	b	77	45	0
Lismore	c	86	69	0
Maitland	u	82	67	0·01
Marsdens	b	95	71	0
Menindie	c	97	78	0
Molong ..	b	93	61	0
Moree ..	c	90	71	0
Moruya ..	b	78	61	0
Moss Vale	u	76	60	0
Mt. Hope	b	90	73	0
M. Vict'ria	g	82	54	0
Mudgee ..	c	90	57	0
Mudgee	c	90	57	0
M'rr'r'nd	b	93	67	0
Mus'lbr'i	g	–	–	0
Narrabrk	b	96	62	0
Newcasi	p	75	62	0·13
Nowra ...	–	–	–	–
Orange ...	b	81	56	0
Picton ...	c	82	63	0
P. M'q'rie	p	81	67	1·60
P. Steph'n	o	81	64	0·24
Q'nbeyan	b	80	61	0
Quirindie	b	93	62	0
Singleton	u	83	69	0·05
SYDNEY ..	c	75	67	0·01
Tamw'rth	b	85	61	0
Taralga ...	b	83	51	0
Taree ..	g	85	69	0·06
T'nt'rfield	c	88	59	0
Wagga ...	b	101	66	0
Walcha ...	o	74	53	0
Walgett ...	b	98	69	0
W'ntw'rth	c	100	67	0
Wilcannia	b	–	–	0
Will'ng'ng	b	82	66	0
Young ..	b	96	62	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years ..... 49·862
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 19th .... 0·167
Barometers corrected to 32° Fah. and Mean Sea Level.

Fine, wind N. Clo wind N.
T. storm, wind S. Rain, wind W.
If it is CALM, the symbol is used without the arrow.
Smooth sea
Heavy sea.
Very heavy sea.



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given by figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and dull, with light S. winds and smooth sea; rain, 0·01 at Albany, and still falling at 9 a.m.

South Australia reports weather generally cloudy, sultry, and gloomy inland to Barrow's Creek; winds light and variable, and calms; thunderstorm at Wellington, with steady rain, smooth sea, steady barometers, and light S. winds on S. coast. Rainfall—Eucla, 0·01; M'Donnell Bay, 0·02.

Victoria.—Generally fine, but cloudy, smooth sea, rising barometers, light variable winds, and foggy in places on coast. Rainfall—Portland, 0·01.

Tasmania.—Fine, but cloudy on N. coast, with fresh N.E. wind.

New Zealand.—Russell, barometer 33·30, wind S.; Wellington, barometer 30·30, wind S.W.; Bluff, barometer 30·40, wind S. Fine generally.

New South Wales.—Generally fine inland, cloudy on coast, with southerly winds and calms and rising barometers; showery N. of Newcastle. Full details in map above.

Queensland.—Generally fine with S.E. and S. winds and calms and smooth sea. No rain.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.W., 8, cloudy, temperature 88°; Cape Otway, E., 8, cloudy, smooth sea, temperature 72°; Portland, S., 16, gloomy, smooth sea, temperature 70°; Wilson's Promontory, N.E., 23, sultry, moderate sea, temperature 80°; Lake Entrance, E.S.E., 8, sultry, smooth sea, temperature 75°.

New South Wales.—Cape St. George, E.N.E., 14, fine, smooth sea, temperature 78°; Clarence River, S.E., 14, fine, smooth sea, temperature 79°; Deniliquin, N., fine, hot, temperature 96°; Dubbo, E., 14, fine, temperature 93°; Eden, N.E., 14, fine, slight sea, temperature 75°; Goulburn, E., 14, fine, temperature 77°; Menindie, N., 28, cloudy, hot, temperature 92°; Moruya, S.E., 28, fine, smooth sea, temperature 76°; Newcastle, S.E., 8, fine, smooth sea, temperature 76°; Port Macquarie, N.E., 14, fine, smooth sea, temperature 73°; Sydney, E.N.E., 8, fine, smooth sea, temperature 77°; Wentworth, S.W., 14, cloudy, temperature 95.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 3 inches above summer level; at Balranald, below summer level. Murray: At Albury, 8 inches above summer level; at Euston, 4 feet 10 inches above summer level. Darling: At Wentworth, 3 feet 10 inches above summer level; at Pooncarie and Menindie, low; at Bourke, 2 feet 1 inch above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 20.

Sun rises at 5.11, sets at 7.11; Moon, 7.8 p.m., 4.32 a.m.; Mercury, 3.36 a.m., 5.51 p.m.; Venus, 8.14 a.m., 8.56 p.m.; Mars, 9.59 p.m., 9.37 a.m.; Jupiter, 10.19 p.m., 10.29 a.m.; Saturn, 5.18 p.m., 3.12 a.m. New moon 5th, full moon 20th.

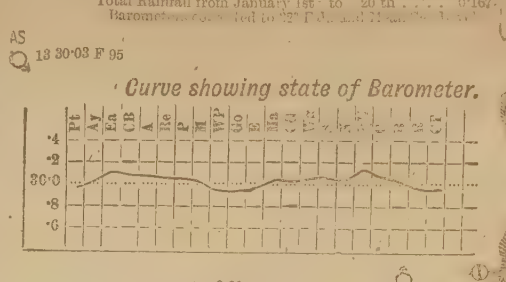
High water at Fort Denison, January 20: 8.8 a.m., 8.33 p.m.

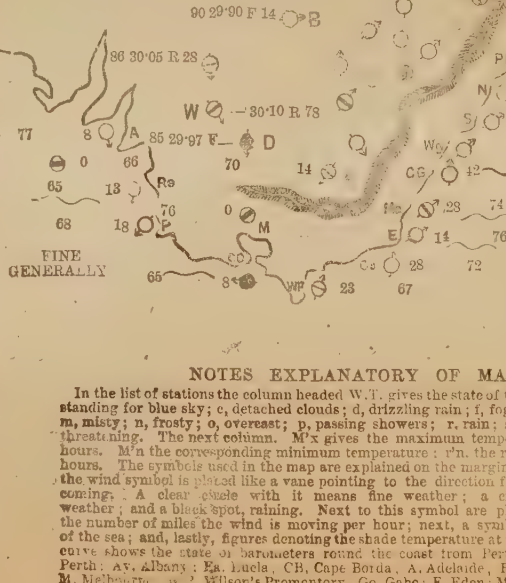
METEOROLOGICAL REPORTS AND MAP FOR JANUARY 20, 1886.

Stations	wt.	Mx.	Mn.	Rain.
Albury	g	103	81	0
Armidale	b	80	57	0
Balranald	b	116	68	0
Bathurst	g	91	60	0
Bend'm'r	b	83	59	0·57
Bodalla ..	c	84	—	0
Bourke ..	b	105	67	0
C'md'n H.	b	81	69	0
C. St. Geo.	b	81	65	0
Carcoar ..	g	83	68	0
Casino ..	c	84	64	0
Cassilis ..	b	83	69	0
Clarence	b	86	66	0·09
C'nd'b'lin	b	93	60	0
Cooma ..	c	96	52	0·20
Coonab'n	c	94	60	0
C'nam ble	b	—	—	0
Cowra ..	b	104	77	0
Deniliq'n	d	111	68	0
Dubbo ..	b	97	68	0
Eden	c	79	67	0
Euston ..	b	111	72	0·04
Forbes ..	b	100	72	0
Gl'n Inn's	g	88	59	0
Goulburn	b	92	60	0
Grafton ..	b	88	67	0·84
Gulgong ..	g	84	60	0
Gunned'h	b	96	71	0
Hay	c	107	71	0
Hill End	b	—	—	0
Inverell ..	b	85	62	0
Kiandra	b	84	45	0
Lismore	c	82	69	0·26
Maitland	c	86	65	0·03
Marsdens	b	98	77	0
Menindie	c	102	82	0
Molong ..	b	99	65	0
Moree ..	c	98	71	0
Moruya ..	c	81	53	0
Moss Vale	c	83	60	0
Mt. Hope	b	95	77	0
M. Vict'ria	c	92	56	0
Mudgee ..	b	92	59	0
M'rr'm'b'h	b	97	69	0
M'rr'r'nd	b	85	66	0
Mus'lbr'i	b	—	—	0
Narrabrk	b	100	66	0
Newcasl	b	78	69	0
Nowra ...	—	—	—	..
Orange ...	g	84	59	0
Picton ...	c	83	64	0
P. M'q'rie	c	85	65	0
P. St'ph'n	c	84	64	0
Q'nbeyan	b	86	67	0
Quirindie	b	97	67	0
Singleton	b	88	69	0
Sydney ..	c	81	67	0
Tamw'rth	—	—	—	—
Taralga ...	b	81	58	0
Taree ...	b	85	65	0·01
T'nt'rfield	u	84	58	0
Wagga ...	b	104	71	0
Walcha ...	g	77	55	0
Walgett...	b	101	73	0
W ntw'rth	c	103	73	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	85	75	0
Young ..	c	102	67	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·862
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 20 th . . . . 0·167.
Barometer reduced to 32° F. and M[illegible]





Fine, wind N. Clo wind E. T. storm wind S. Rain, wind W. If it is CALM, the symbol is used without the arrow. Smooth sea. Very heavy sea.

TIME BALL.
Dropsat 1 p.m. SMT.
2h. 55m. 9·19s. a.m.
Greenwich M. Time.
Mag. Var. 9°35′57″ E.

Barometers fallen about 0·07 on E. coast.

H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with [illegible] weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt. Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; [illegible] Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C[illegible] Bay; Wg, Wellington; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, [illegible] Springs. The [illegible] curve enables one at a glance to trace the depressions, beginning with [illegible] Australasia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with scattered clouds, light S. winds, and smooth sea; no rain.

South Australia reports weather generally fine, with scattered clouds and light S.W. to S.E. winds. Thunderstorm yesterday afternoon, at Hallett; rain, 0·51; at Daly Waters, 0·44; at Port Augusta, 0·05; at Robe, 0·05.

Victoria.—Cloudy, with light variable winds and calms and rising barometer; smooth sea on coast; raining at Cape Otway. Rainfall: Melbourne, 0·10; Cape Otway, 7·17; Wilson's, 0·02.

Tasmania.—Dull on north coast, with light E.N.E. wind. Rain: Low Heads, 0·06.

New Zealand.—Russell, barometer 30·40, wind N.E., fine generally; Wellington, barometer 30.20, wind N.W., fine generally; Bluff, barometer 30.20, wind S.W., fine generally.

New South Wales.—Generally fine, scattered clouds in places; smooth sea, falling barometers, light to fresh N.E. winds, and clear weather on coast; light rain fell[illegible] at Deniliquin; calm generally inland. Full details in map above.

Queensland.—Generally cloudy, with S.E. and S. winds and moderate sea. Rainfall: Cape Moreton, 0·09.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, N.N.E., 20, clear, temperature 74°; Clarence River, S.E., 14, fine, smooth sea, temperature 80°; Deniliquin, S., dull, temperature 90°; [illegible] temperature 85°; Eden, E., 14, fine, slight sea, temperature [illegible]; Goulburn, N.E., 14, fine, temperature 78°; Menindie, S., cloudy, fine, temperature 92°; Moruya, N., 28, dull, temperature 76°; Newcastle, N.E., 8, fine, smooth sea, temperature 76°; Port Macquarie, N.E., 14, fine, smooth sea, temperature 82°; Sydney, E.N.E., 13, cloudy, smooth sea, temperature 77°; Wentworth, S., 14, cloudy, dull, temperature 76°; Walgett, N.E., fine, temperature 100°.

Victoria.—Melbourne, S., 13, dull, temperature 69°; Cape Otway, S.S.W., 8, showery, slight sea, temperature 66°; Portland, S., 23, fine, smooth sea, temperature 70°; Wilson's Promontory, W., 8, cloudy, slight sea, temperature 76°; Lake Entrance, E.N.E., 8, raining, smooth sea, temperature 61°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 1 inch above summer level; at Hay, summer level; at Balranald, 10 inches above summer level. **Murray**: At Albury, 7 inches above summer level; at Euston, 4 feet 8 inches above summer level. Darling: At Wentworth, 3 feet 10 inches above summer level; at Pooncarie, summer level; at Menindie, summer level; at Wilcannia, low; at Bourke, 1 foot 10 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY.

Sun rises at 5.12, sets at 7.11; Moon, 8 p.m. Mercury, 3.37 a.m., 5.53 p.m.; Venus, 8.12 a.m. Mars, 9.55 p.m., 9.33 a.m.; Jupiter, 10.15 p.m. Saturn, 5.13 p.m., 3.7 a.m. New moon 5th, full moon

High water at Fort Denison, January 21: 8.57

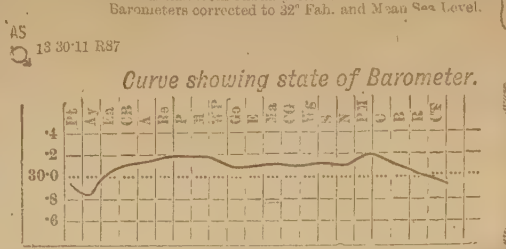
METEOROLOGICAL REPORTS AND MAP FOR JANUARY 21, 1886

Stations	wb	Mx	Mn	R'in
Albury	c	89	72	0·10
Armidale	b	83	58	0
Balranald	b	103	58	0·04
Bathurst	u	90	63	0
Bend'm'r	b	85	59	0
Bodalla ..	o	86	—	0·05
Bourke	g	110	66	0
C'md'n H.	b	82	65	0
C. St. Geo.	c	77	69	0
Carcoar ..	g	82	63	0
Casino ..	b	87	63	0·04
Cassilis ..	b	87	70	0
Clarence	b	89	67	0
C'nd'b'lin	b	95	64	0
Cooma ..	c	89	58	0·25
Coonab'n	b	94	60	0
C'nam ble	b	—	—	0
Cowra ..	d	103	73	0
Deniliq'n	b	102	58	0·46
Dubbo ..	b	99	72	0
Eden	r	79	66	0·14
Euston ..	b	82	66	0
Forbes ..	b	101	74	0
Gl'n Inn's	b	85	56	0
Goulburn	g	96	62	0·54
Grafton ..	b	86	63	0·08
Gulgong	c	85	67	0
Gunned'h	—	—	—	—
Hay	b	96	68	0
Hill End	u	—	—	0
Inverell ..	b	89	65	0
Kiandra	b	83	20	0·12
Lismore	r	86	69	0·20
Maitland	b	93	67	0
Marsdens	b	99	81	0
Menindie	b	98	76	0
Molong ..	o	96	63	0
Moree ..	b	99	72	0
Moruya ..	b	—	59	0·05
Moss Vale	g	85	61	0·01
Mt. Hope	c	96	79	0
M. Vict'ria	c	88	55	0
Mudgee ..	u	95	62	0
M'rr'm'b'h	c	100	72	0
M'rr'r'nd	b	87	68	0
Mus'lbr'k	b	—	—	0
Narrabrk	b	106	71	0
Newcasl	b	80	69	0
Nowra ...	-	—	—	..
Orange ...	c	85	62	0
Picton ...	u	88	64	0
P. M'q'rie	b	83	65	0·03
P. St'ph'n	b	85	60	0
Q'nbeyan	b	88	63	0
Quirindie	h	99	69	0
Singleton	b	90	69	0
Sydney ..	o	81	68	0
Tamw'rth	b	91	62	0
Taralga ...	c	98	64	0·25
Taree ...	b	89	67	0
T'nt'rfield	b	84	59	0
Wagga ...	b	105	71	0
Walcha ...	b	79	56	0
Walgett...	b	103	75	0
W ntw'rth	b	87	70	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	86	68	0
Young ..	b	103	89	0·02

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 27 years from Jan. 1st to November 30 47·683
Total Rainfall from January 1st to 20 th . . . . 0·167
Barometers corrected to 32° Fah. and Mean Sea Level.



Fine, wind N. Cb wind E.
T. storm, wind S. Rain, wind W.
If it is CALM, the symbol is used without the arrow.
Smooth sea
Heavy sea.
Very heavy sea.

TIME BALL
Drops at 1p.m. 3M 7
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9°55′37·4 E

Barometers risen about 0·07 on E coast.

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.. b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t. thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n. the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt. Perth; Ay, Albany; Ea. Eucla; CB Cape Borda; A. Adelaide; Re. Robe; P. Portland; M. Melbourne, W.P. Wilson's Promontory; Go. Gabo; E. Eden; Ma. Moruya; C.G Jervis Bay; Wg. Wollongong; S, Sydney; N. Newcastle. P.M. Port Macquarie; C, Clarence River; B. Brisbane; R. Rockhampton; Ct. Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them and southerly following.

Western Australia.—Weather cloudy generally, with light southerly winds, falling barometers, and smooth sea. Thunderstorms at Albany and Esperance Bay. Rainfall: At Albany, 0.05; and Esperance Bay, 0·02.

South Australia.—Generally fine, with scattered clouds, and cloudy in places. Winds at from south and south east, at noon 13 to 23 miles per hour. Sea smooth. No rain reported.

Victoria.—Generally fine, with light southerly winds, slightly rising barometers, and smooth sea. Rainfall—At Echuca, 0·65; Omeo, 0·20; Wilson's Promontory, 0·05. Squally at Wilson's Promontory, misty off Cape Otway.

Tasmania.—At Low Heads, weather gloomy and sultry and calm; barometer reads 30.18.

New Zealand.—Fine generally. Russell, barometer 30·4, wind calm; Wellington, barometer 30·3, wind N.E.; Bluff, barometer 30·3, wind calm.

New South Wales.—Weather fine generally; light rain has fallen in places on the coast and in country, especially in Southern part. Winds from N.E. to S.E. Barometer risen generally. Sea smooth, Extra station—Temora.—Weather showery. Rainfall, 0·04. For particulars see map.

Queensland.—Weather fine generally, with E. and S.E. winds, and steady barometer. Rough sea off Cooktown. Rainfall: 0·25 at Cooktown; 0·41 at Brisbane.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, N., 42, fine, smooth sea, temperature 77°; Deniliquin, calm, 0, fine, temperature 86°; Dubbo, W., 17, cloudy, temperature 86°; Eden, S.W., 17, cloudy, smooth sea, temperature 72°; Goulburn, E., cloudy, temperature 78°; Menindie, S., 14, fine, temperature 91°; Moruya, S., 28, cloudy, smooth sea, temperature 69°; Newcastle, E., 14, fine, smooth sea, temperature 76°; Port Macquarie, E., 8, fine, smooth sea, temperature 83°; Sydney E.N.E., 14, cloudy, smooth sea, temperature 78°; Wentworth, S.E., 14, cloudy, hazy, temperature 82°; Walgett, S.E., 14, cloudy, temperature 93°.

Victoria.—Melbourne, S.W., 17, cloudy, temperature 69°; Cape Otway, S., 8, fine and misty, smooth sea, temperature 74°; Portland, E.S.E., 29, fine, smooth sea, temperature 71°; Wilson's Promontory, N.E., 8, fine, smooth sea, temperature 76°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 4 inch above summer level; at Hay, summer level; at Balranald, 10 inches above summer level. Murray: At Albury, 6 inches above summer level; at Euston, 4 feet 6 inches above summer level. Darling: At Wentworth, 3 feet 9 inches above summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, 1 foot 2 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 22.

Sun rises at 5.13, sets at 7.10; Moon, 8·46 p.m., 6.48 a.m. Mercury, 3.39 a.m., 5.55 p.m.; Venus, 8.9 a.m., 8.48 p.m.; Mars, 9.51 p.m., 9.29 a.m.; Jupiter, 10.11 p.m., 10.21 a.m.; Saturn, 5.9 p.m., 3.30 a.m. New moon 5th, full moon 20th.

High water at Fort Denison, January 22: 9.43 a.m., 10.5 p.m.

METEOROLOGICAL REPORT AND MAP FOR JANUARY 22, 1886

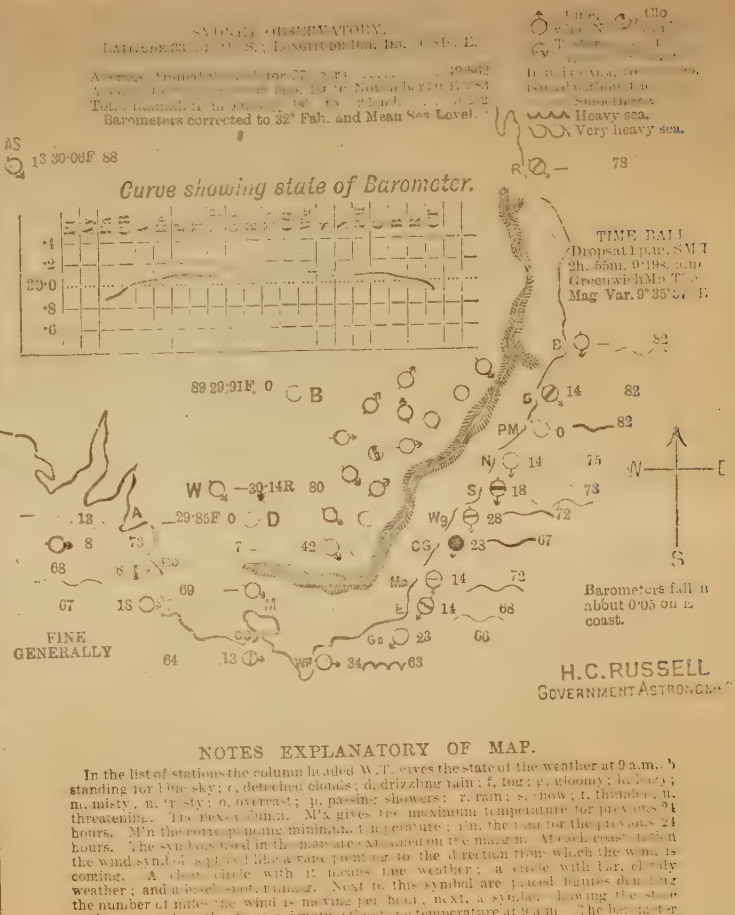
Stations.	wt	Mx	wt	Mn
Albury	b	95	63	0
Armidale	b	84	52	0
Balranald	b	101	62	0
Bathurst	b	88	61	0·06
Bend'm'r	c	87	68	0
Bodalla..	g	78	—	0·15
Bourke ..	b	113	70	0·05
C'md'n H.	c	83	70	0
C. St. Geo.	b	75	64	0·35
Carcoar..	c	81	63	0·13
Casino ..	b	81	66	0
Cassilis ..	c	88	71	0
Clarence	c	90	67	0·07
C'nd'b'lin	b	96	61	0
Cooma ..	c	79	57	0·45
Coonab'n	h	97	65	0·32
C'nam ble	b	—	—	0·50
Cowra ..	d	99	68	0·06
Deniliq'n	b	96	53	0
Dubbo ..	h	101	66	0·22
Eden	u	72	64	0·35
Euston ..	b	100	64	0
Forbes ..	b	99	67	0
Gl'n Inn's	b	95	61	0
Goulburn	c	81	61	0·69
Grafton..	b	3	69	0
Gulgong	u	88	69	0·05
Gunned'h	—	—	—	—
Hay	b	92	61	0
Hill End	b	—	—	0·14
Inverell..	b	85	69	0
Kiandra	b	70	50	0·08
Lismore	b	87	70	0·01
Maitland	c	95	70	0
Marsdens	b	96	72	0·01
Menindie	c	95	60	0
Molong ..	n	96	62	0·02
Moree ..	b	96	71	0·08
Moruya..	c	77	66	0·12
Moss Vale	u	78	61	0·29
Mt. Hope	b	86	76	0
M. Vict'ria	u	83	57	0·09
Mudgee...	h	95	63	0·11
M'rr'm'b'h	b	91	71	0·23
M'rr'm'nd	h	87	71	0
Mus'lbr'i	u	—	—	0
Narrabrk	b	101	65	0
Newcasi	b	81	70	0
Nowra ...	–	—	—	..
Orange ...	c	86	59	0·15
Picton ..	g	85	65	0·29
P. M'q'rie	b	85	66	0
P. St'ph'n	b	85	68	0
Q'nbeyan	c	85	63	0·20
Quirindie	h	97	72	0
Singleton	u	90	73	0
Sydney ..	o	79	69	0·05
Tamw'rth	b	92	68	0
Taralga...	u	96	59	0·15
Taree ..	b	89	69	0
T'nt'rfield	b	85	60	0
Wagga ...	b	98	64	0·35
Walcha ...	b	82	60	0
Walgett..	b	105	73	0
W ntw'rth	b	97	70	0
Wilcannia	b	—	—	0·10
W'll'ng'ng	c	81	67	0·12
Young ..	b	95	63	0·13

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 40″ S.; LONGITUDE [illegible] E.

[illegible]

Barometers corrected to 32° Fah. and Mean Sea Level.



H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for fine sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Mx gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature; the last for the previous 24 hours. The symbols used in the map are explained on the margin. Mouth coast below the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a heavy storm, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next, a symbol showing the state of the sea; and, lastly, figures denoting the temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown — Pt. Perth; Ay. Albany, Ea. Eucla, CB. Cape Borda, A. Adelaide, Ro. Robe, P. Portland; M Melbourne, W.P. Wilson's Promontory, Go. Gabo, E. Eden, Ma. Moruya, Co. Jervis Bay, Wg. Wollongong, S. Sydney, N. Newcastle, P.M. Port Macquarie, C. Clarence River, B. Brisbane; R. Rockhampton; Ct. Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Mennindie, Bourke, and Cobar Springs. The barometer curve enables one at a glance to trace the movements, beginning with Western Australia and passing eastwards, the atmospheric disturbances preceding them, and southerly following.

South Australia.—Generally fine and warm, with few scattered clouds; in places north of Port Augusta sultry and threatening rain. Winds from S.E. to N.E., at from 13 to 23 miles per hour. Barometers fallen slightly generally. Sea smooth. No rain.

Victoria.—Weather fine, with fresh E. winds and fallen barometers; foggy at Cape Otway; rough sea off Wilson's Promontory. Rainfall:—At Lake Entrance, 1.25; at Wilson's Promontory, 9.10; at Cape Otway, 0.02.

Tasmania.—At Low Heads, weather fine, with fresh southerly wind and smooth sea, and slightly risen barometer. Rainfall, 0.04.

New South Wales.—Weather fine; light rain fallen generally; wind, light from S. and E. generally. Barometers fallen slightly generally. Sea smooth. Picton reports thunderstorm from W., at 6.30 p.m. on the 21st. Extra Station: Camden, rainfall, 0.30. (For particulars see map.)

Queensland.—Weather showery and gloomy generally, with S.E. winds and fallen barometers. Rainfall at Cooktown, 0.10; at Brisbane, 0.02; sea smooth.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, S., 28, fine, smooth sea, temperature 73°; Clarence River, S.E., fine, smooth sea, temperature 82°; Deniliquin, calm, fine, temperature 90°; Dubbo, W., 14, stormy looking, temperature 83°; Goulburn, E., fine, temperature 75°; Moruya, S.S.E., 28, fine, smooth sea, temperature 75°; Newcastle, S.S.E., 14, fine, smooth sea, temperature 74°; Port Macquarie, S.E., 14, cloudy, moderate sea, temperature 84°; Sydney S., 18 fine, smooth sea, temperature 78°; Wentworth, S., fine, temperature 83°.

Victoria.—Melbourne, S.S.W., 13, fine, temperature 82°; Cape Otway, E., 13, cloudy, misty, rough sea, temperature 68°; Portland, E.S.E., 28, fine, smooth sea, temperature 71°; Wilson's Promontory, E.N.E., 34, fine, hazy, rough sea, temperature 61°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot above summer level; at Hay summer level; at Balranald, 8 inches above summer level. Murray: At Albury, 6 inches above summer level; at Euston, 4 feet 4 inches above summer level. Darling: At Wentworth, 3 feet 8 inches above summer level; at Pooncarie, Menindie, and Wilcannia, low; at Bourke, 10 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 23.

Sun rises at 5.14, sets at 7.10; Moon, 9.28 p.m., 7·58 a.m.; Mercury, 3.41 a.m., 5.57 p.m.; Venus, 8.6 a.m., 8.43 p.m.; Mars, 9.47 p.m., 9.25 a.m.; Jupiter, 10.7 p.m., 10.17 a.m.; Saturn, 5.5 p.m., 2.59 a.m. New moon 5th, full moon 20th.

High water at Fort Denison, January 23: 10.27 a.m., 10.48 p.m.

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 23, 1886.

Stations	wt/Mx	Mn	rain
Albury	b	99	63	0
Armidale	b	88	68	0
Balranald	b	103	55	0
Bathurst	b	86	57	0·77
Bend'n'r	c	89	61	0·33
Bodalla	—	—	—	—
Bourke	b	110	70	0
C'md'n H.	b	82	67	0
C. St. Geo.				
Carcoar	b	86	64	0·45
Casino	—	—	—	—
Cassilis	b			0
Clarence	b			0
C'ud'b'lin	b			0
Cooma	b	86	54	0
Coonab'n	b	99	61	1·16
C'ram'ble	b			C
Cowra	b	102	71	0
Deniliq'n	b	111	63	0
Dubbo	b	93	69	C
Eden	—	—	—	—
Euston	b	100	59	0
Forbes	b	98	71	0
G'n ina's	c	80	61	0·63
Goulburn	b	83	60	0
Grafton	u	94	71	0
Guigong	b	81	61	0
Gunned'h	—	—	—	—
Hay	b	101	71	0
Hill End	b	—	—	0·13
Inverell	b	87	64	0
Kiandra	b	76	50	0
Lismore	b	87	70	0
Maitland	b	88	66	0
Marsdens	b	93	77	0
Menindie	b	97	73	0
Molong	b	101	66	0
Moree	b	95	69	0·24
Moruya	b	79	62	0
Moss Vale	b	76	58	0
Mt. Hope	b	96	81	0
M. Vict'ria	b	—	54	0·23
Mudgee	b	95	59	0
M'rr'm'b'h	b	93	67	0
M'rr'n'd	b	88	58	0·02
Mus'lbr'k	b	—	—	0
Narrabri	b	86	62	0·16
Newcast	b	80	68	0
Nowra	—	—	—	—
Orange	b	80	57	0·16
Picton	b	81	61	0
P. M'q'rie	b	86	64	0
P. St'ph'n	b	—	68	0
Q'nbeyan	b	86	65	0
Quirindie	b	91	70	0
Singleton	b	84	65	0
SYDNEY	b	81	65	0·01
Tamw'rth	b	92	64	0
Taralga	b	88	58	0
Taree	b	89	67	0
Tnt'rfie d	—	—	—	—
Wagga	b	98	63	0
Walcha	b	83	56	1·06
Walgett	b	106	68	2·25
W'ntw'rth	b	101	71	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	82	64	0
Young	b	96	61	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 12″ S.; LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years.....49·262
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 23 rd. . . . 0·218
Barometers corrected to 32° Fah. and Mean Sea Level.

Fine, wind N — Clo wind E
T. storm wind S
If it is CALM, the symbol is used without the arrow
Smooth sea
Heavy sea.
Very heavy sea.

Curve showing state of Barometer.

TIME BALL
Dropsat 1 p.m. SMT
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35′ 37″ E

Barometers fallen about 0·05 on E coast.

FINE GENERALLY

H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Weather fine generally, with light easterly winds and calms, fallen barometers, and smooth sea. Rainfall—Eucla, 6·25; Esperance Bay, 0·01.

Victoria.—Fine generally, with light easterly winds and fallen barometers; misty and rough sea at Cape Otway; sultry at Melbourne. No rain.

Tasmania.—At Low Heads, weather cloudy, with light S.S.E. wind, and barometer fallen to 30·01.

New Zealand.—Fine generally. Russell, barometer 30·3, wind S.; Wellington, barometer 30·2, wind S.E.; Bluff, barometer 30·1, wind S.E.

New South Wales.—Weather fine generally; heavy rain fallen on the northern part of the Darling. Winds light and variable. Barometers fallen generally. Sea smooth. Walgett reports thunderstorm yesterday, with heavy rain. Gunnedah, S.E., now fine. Rain, 1·19. (For particulars see map.)

Queensland.—Weather fine generally, with S.E. winds, risen barometers, and smooth sea. No rain reported.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, calm, fine, smooth sea, temperature 78°; Portland, S.W., 24, fine, smooth sea, temperature 80°; Wilson's Promontory, N.E., 24, fine, smooth sea, temperature 75°.

New South Wales.—Cape St. George, calm, fine, smooth sea, temperature 77°; Clarence River, S.E., 40, fine, smooth sea, temperature 80°; Deniliquin, N., 10, fine, temperature 96°; Dubbo, E., 14, fine, hot, temperature 84°; Eden, calm, fine, smooth sea, temperature 71°; Goulburn, fine, temperature 77°; Moruya, N.E., 30, fine, smooth sea, temperature 77°; Newcastle, S.W., 10, fine, smooth sea, temperature 71°; Port Macquarie, S.S.E., 28, fine, smooth sea, temperature 85°; Sydney S., 15, fine, clear, smooth sea, temperature 81°; Wentworth, S.E., 14, fine, temperature 73°; Walgett, S.E., like a storm, temperature 95°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, summer level; at Balranald, 7 inches above summer level. Murray: At Albury, 5 inches above summer level; at Euston, 4 feet 2 inches above summer level. Darling: At Wentworth, 3 feet 6 inches above summer level; at Pooncarie, low; at Menindie, dry; at Wilcannia, low; at Bourke, 1 foot 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 25.

Sun rises at 5.16, sets at 7.8; Moon, 10.47 p.m., 10·9 a.m.; Mercury, 3.46 a.m., 6.3 p.m.; Venus, 8.1 a.m., 8.34 p.m.; Mars, 9.39 p.m., 9.17 a.m.; Jupiter, 9.59 p.m., 10.9 a.m.; Saturn, 4.57 p.m., 2.51 a.m. New moon 5th, full moon 20th.

High water at Fort Denison, January 25: 11.50 a.m.

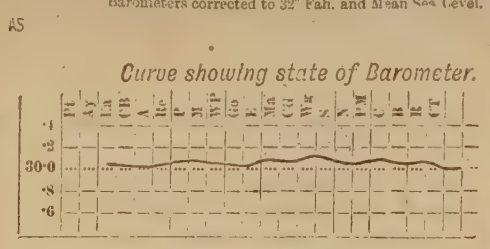
METEOROLOGICAL REPORTS AND MAP FOR JANUARY 25, 1886

Stations	wt	Mx	m	R'in
Albury	u	96	83	0
Armidale	b	92	60	0·80
Balranald	u	102	62	0·20
Bathurst	u	95	61	0
Bend'm'r	b	85	61	0
Bodalla ..	o	91	–	0·05
Bourke ..	b	116	62	0
C'md'n H.	–	–	–	0
C. St. Geo.	u	–	69	0
Carcoar ..	u	87	68	0
Casino ..	b	97	64	0
Cassilis ..	b	95	74	0
Clarence	b	89	72	0
C'nd'b'lin	u	101	69	0
Cooma ..	c	82	45	1·35
Coonab'n	h	93	65	0·16
C'nam ble	g	–	–	0
Cowra ..	d	99	74	0
Deniliq'n	u	104	59	0
Dubbo ..	c	103	70	0
Eden	c	84	65	0
Euston ..	r	106	56	1·04
Forbes ..	u	105	71	0
Gl'n Inn's	b	94	58	0·10
Goulburn	c	96	61	0·25
Grafton ..	b	97	70	0
Gulgong	b	88	68	0
Gunned'h	–	–	–	–
Hay	r	105	68	0·17
Hill End	u	–	–	0
Inverell ..	b	88	66	0
Kiandra	o	82	53	0
Lismore	b	95	70	0
Maitland	c	102	75	0·10
Marsdens	u	100	76	0
Menindie	c	103	81	0
Molong ..	o	103	65	0
Moree ..	b	104	70	0
Moruya ..	c	86	66	0·05
Moss Vale	u	87	67	0·14
Mt. Hope	b	100	76	0
M. Vict'ria	u	88	58	0·08
Mudgee ..	c	100	60	0·20
M'rr'm'b q	–	–	–	–
M'rr'r'n	d	b	91	70	0·40
Mus'lbr'	k	b	104	68	0
Narrrab	ri	b	104	64	0·51
Newcastle	c	85	73	0
Nowra ..	–	–	–	–
Orange ..	c	89	70	0
Picton ..	o	91	37	0·03
P.M'q'rie	b	86	67	0
P. St'ph'n	u	83	65	0
Q'nbeyan	u	91	67	0
Quirindie	b	97	70	0
Singleton	b	87	70	0·25
Sydney ..	o	85	70	0·09
Tamw'rth	b	96	66	0·14
Taralga ...	u	99	57	0
Taree ..	b	95	72	0
T'nt'rfie d	b	91	60	0·21
Wagga ...	c	98	63	0
Walcha ...	t	85	67	0·76
Walgett...	b	107	75	0
W ntw'rth	c	88	71	2·11
Wilcannia	u	–	–	0
W'll'ng'ng	c	92	69	0
Young ..	–	106	67	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 25 th.... 0·308
Barometers corrected to 32° Fah. and Mean Sea Level.

Fine, wind N. Clo wind E. T. storm, wind S. Rain, wind W. If it is CALM, the symbol is used without the arrow. Smooth sea. Heavy sea. Very heavy sea.



TIME BALL
Drops at 1 p.m. S.M.T.
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35·37′ E.

Barometers risen about 0·07 on E. coast.

H.C. RUSSELL.
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla, CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Weather fine, but sultry, and threatening in N.W.; thunder in N. and W., with N.E. wind, fallen barometer, and smooth sea. No rain reported.

South Australia.—Cloudy, gloomy, and sultry between Georgetown and Hergott; fine and hot S. of Georgetown; light S. and S.E. wind; light rain recorded inland to Powell's Creek, very little near coast. Rainfall—Beltana, 0·31; Carrieton, 0·30; Port Augusta, 0·03; and MacDonnell Bay and Powell's Creek, each 0·01.

Victoria.—Weather cloudy generally, with light easterly winds, slightly fallen barometers, and smooth sea; misty at Cape Otway and Wilson's Promontory; no rain. At Echuca barometer reads 29·99, with fine weather, and S.W. wind.

Tasmania.—Low Heads, barometer risen to 30·14, with cloudy weather and N.E. wind.

New Zealand.—Russell, barometer 30·1, wind N.E., weather fine; Wellington, barometer 30·0, wind N.W., weather gloomy; Bluff, barometer 29·8, wind S.W., weather gloomy. Showery on West Coast.

New South Wales.—Weather cloudy and threatening generally; rain has fallen—in southern parts of country heaviest; winds from N.E. to S.E. generally. Barometers fallen in country, risen on coast; yesterday it was very hot and sultry generally. (For particulars see map.)

Queensland.—Weather fine generally, with easterly winds, risen barometers, and smooth sea. No rain.

3 P.M. OBSERVATIONS.

New South Wales.—Clarence River, S.E., 14, fine, smooth sea, temperature 81°; Deniliquin, N.E., fine, temperature 80°; Eden, E.S.E, cloudy, smooth sea, temperature 70°; Goulburn, S.E., showery, temperature 71°; Menindie, S., cloudy, temperature 93°; Moruya, N.E., 28, cloudy, temperature 78°; Newcastle, S., 28, raining, smooth sea, temperature 73°; Port Macquarie, E., 28, fine, smooth sea, temperature 86°; Sydney, S., 10, cloudy, smooth sea, temperature 69°; Wentworth, W.N.W., 14, fine, temperature 78°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, summer level; at Balranald, 8 inches above summer level. Murray: At Albury, 8 inches above summer level; at Euston, 4 feet above summer level. Darling: At Wentworth, 3 feet 5 inches above summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, 1 foot above summer level.

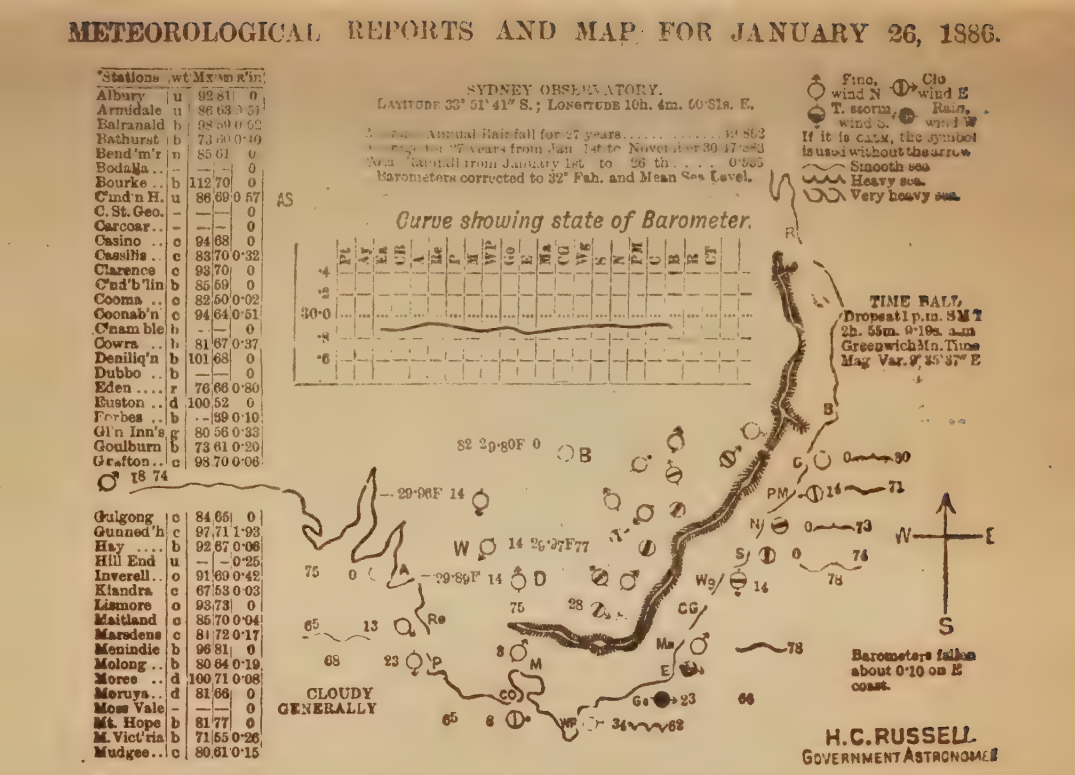
ASTRONOMICAL MEMORANDA FOR JANUARY 26.

Sun rises at 5.17, sets at 7.7; Moon, 11.24 p.m., 11·11 a.m.; Mercury, 3.48 a.m., 6.4 p.m.; Venus, 7.58 a.m., 8.30 p.m.; Mars, 9.35 p.m., 9.13 a.m.; Jupiter, 9.55 p.m., 10.5 a.m.; Saturn, 4.53 p.m., 2.47 a.m. New moon 5th, full moon 20th.

High water at Fort Denison, January 26: 12.12 a.m., 12.34 p.m

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 26, 1886.

Stations	wt	M'max	M'min	R'in
Albury	u	92	81	0
Armidale	u	86	63	0·57
Balranald	b	98	59	0·62
Bathurst	b	74	50	0·10
Bend'm'r	n	85	61	0
Bodalla	–	—	—	0
Bourke	b	112	70	0
C'nd'n H.	u	86	69	0·57
C. St. Geo.	–	—	—	0
Carcoar	–	—	—	0
Casino	c	94	68	0
Cassilis	c	83	70	0·32
Clarence	c	93	70	0
C'nd'b'lin	b	85	59	0
Cooma	c	82	50	0·02
Coonab'n	c	94	64	0·51
C'nam ble	b	–	—	0
Cowra	b	81	67	0·37
Deniliq'n	b	101	68	0
Dubbo	b	—	—	0
Eden	r	76	66	0·80
Euston	d	100	52	0
Forbes	b	–	39	0·10
Gl'n Inn's	g	80	56	0·33
Goulburn	b	73	61	0·20
Grafton	c	98	70	0·06
Gulgong	c	84	65	0
Gunned'h	c	97	71	1·93
Hay	b	92	67	0·06
Hill End	u	—	—	0·25
Inverell	o	91	69	0·42
Kiandra	c	67	53	0·03
Lismore	o	93	73	0
Maitland	c	85	70	0·04
Marsdens	c	81	72	0·17
Menindie	b	96	81	0
Molong	b	80	64	0·19
Moree	d	100	71	0·08
Moruya	d	81	66	0
Moss Vale	–	—	—	0
Mt. Hope	b	81	77	0
M. Vict'ria	b	71	55	0·26
Mudgee	c	80	61	0·15
M'rr'm'bg	b	77	66	0·15
M'rr'ond	u	84	70	0·20
Mus'br'k	g	94	67	0·05
Narrabri	u	105	65	0·06
Newcastle	c	180	70	0·14
Nowra	–	—	—	0
Orange	b	72	57	0·35
Picton	–	—	—	0
P.M'q'rie	c	84	67	0·42
P. St'ph'n	c	82	69	0·23
Q'beyan	b	74	65	0
Quirindie	u	91	70	0·11
Singleton	b	85	77	0·15
Sydney	c	75	67	0·22
Tamw'rth	–	—	—	0
Taralga	u	91	75	0·23
Taree	c	91	71	0·41
Tent'rfie'd	b	94	59	0·02
Wagga	c	88	65	0.06
Walcha	c	84	59	0·28
Walgett	b	99	73	0
W ntw'rth	b	105	71	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	85	77	0·30
Young	c	76	70	0.37



NOTES EXPLANATORY OF MAP.

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South Australia.—Generally fine and pleasant; scattered clouds between Wirabara and Peake, and on and near coast; light south and south-east winds; thunderstorm and showers in night at Eucla, where rain measured 0·75.

Victoria.—Weather fine generally, with light easterly winds and smooth sea, except at Wilson's Promontory, where the wind is rather strong in squalls and the sea rough; barometer low. Rainfall, Melbourne, 0·06; Cape Otway, 0·05.

New South Wales.—Weather cloudy and threatening generally, light and variable calms prevailing; barometers fallen generally; sea smooth. Extra station not in map.—Temora, weather very hot; rain, 0·23. Morangarella, weather, dull and close; rain, 0·25. For particulars see map.

3 P.M. OBSERVATIONS.

New South Wales.—Sydney, N.E., 10, thunderstorms in west, temperature 73°. Telegram from Mr. Weedan at 7.10 p.m. reports heavy rain storm at Tumut, 0·75 rain fell in less than half an hour. At Sydney one thunderstorm passed by to N. with a few drops of rain; and a second one passed over the city at 4.30 p.m., heavy rain fell for a short time; total up to 9 p.m., 0·23.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet above summer level; at Hay, below summer level; at Balranald, 3 inches above summer level. Murray: At Albury, 10 inches above summer level; at Euston, 4 feet 2 inches above summer level. Darling: At Wentworth, 3 feet 5 inches above summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, 10 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 27.

Sun rises at 5.18, sets at 7.7; Moon, 12.12 p.m.; Mercury, 3.50 a.m., 6.6 p.m.; Venus, 7.55 a.m., 8.25 p.m.; Mars, 9.31 p.m., 9.9 a.m.; Jupiter, 9.51 p.m., 10.1 a.m.; Saturn, 4.49 p.m., 2.43 a.m. New moon 5th, full moon 20th.

High water at Fort Denison, January 26: 12.58 a.m., 1.22 p.m.

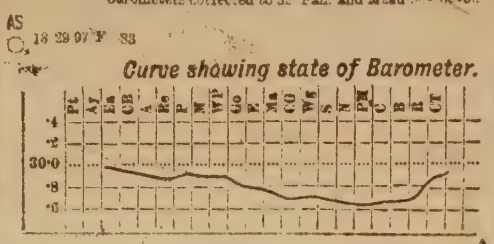
METEOROLOGICAL REPORTS AND MAP FOR JANUARY 27, 1886.

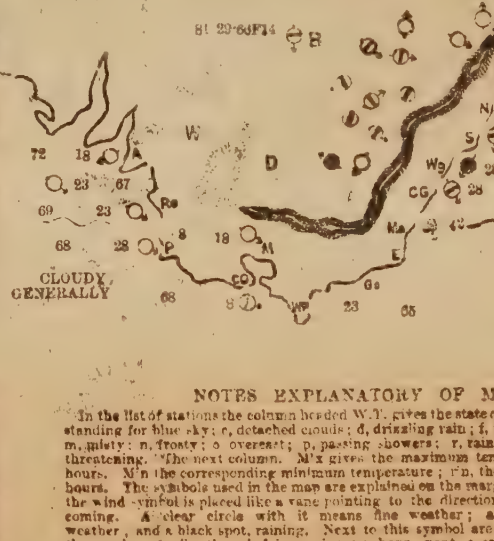
Stations.	wh.	Mx.	Mn.	R'in
Albury	-	—	—	—
Armidale	r	80	62	0·68
Balranald	-	—	—	—
Bathurst	u	83	60	0·07
Bond'm'r	r	88	63	2·08
Bodalla ..	o	83	—	1·25
Bourke ..	c	110	72	0
C'md'n H.	u	78	70	0
C. St. Geo.	c	93	63	0
Carcoar ..	b	76	61	0·10
Casino ..	b	95	63	0·82
Cassilis ..	u	81	69	1·06
Clarence	b	98	71	1·32
C'nd'b'lin	-	—	—	—
Cooma ..	u	74	53	0·40
Coonab'n	o	91	67	0
C'namble	u	—	—	0
Cowra ..	-	—	—	—
Deniliq'n	-	—	—	—
Dubbo ..	u	7	69	0·22
Eden	-	—	—	—
Euston ..	-	—	—	—
Forbes ..	-	—	—	—
Gl'n Inn's	u	83	69	0·60
Goulburn	c	79	56	0·39
Grafton ..	b	89	69	0·03
Gulgong	u	84	66	0·50
Gunned'h	o	91	70	0·25
Hay	b	93	66	0
Hill End	u	—	—	0·10
Inverell ..	b	85	67	0·38
Kiandra	-	—	—	—
Lismore	d	93	73	0·04
Maitland	o	89	69	0·03
Marsdens	u	92	71	0
Menindie	-	—	—	—
Molong ..	d	92	65	0·03
Moree ..	u	95	70	0·04
Moruya ..	c	83	62	2·00
Moss Vale	u	77	57	0·22
Mt. Hope	-	—	—	—
M. Vict'ria	u	73	55	0
Mudgee ..	u	91	61	0
M'rr'mbh	c	84	63	0·56
M'rr'ndi	c	81	69	0·45
Mus'br'k	c	97	66	0·15
Narrabri	u	103	64	0·07
Newcastle	b	80	69	0·05
Nowra ..	-	—	—	—
Orange ..	c	83	57	0·40
Picton ..	c	86	61	0·69
P. M'q'rie	u	83	67	0·13
P. St'ph'n	o	84	63	0·05
Q'beyan	b	78	58	0·08
Quirindi	u	89	63	0·28
Singleton	b	82	71	0·76
Sydney ..	o	78	67	0·27
Tamw'rth	-	—	—	—
Taralga ..	u	83	61	0·39
Taree	c	87	69	0·00
T'nt'rfield	b	91	60	1·02
Wagga ..	c	90	60	0·23
Walcha ..	r	73	59	2·12
Walgett ..	c	04	75	0
W'ntw'rth	-	—	—	—
Wilcannia	u	—	—	0
W'll'ng'ng	r	82	65	0·27
Young ..	c	85	57	0·55

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 27 th.... 0·802
Barometers corrected to 32° Fah. and Mean Sea Level.





Fine, wind N. Cloudy, wind E. Thunderstorm. Rain, wind S. Hail, wind W. If it is calm, the symbol is used without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'in, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind-symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ba, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Gb, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ck, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Not in.

South Australia.—Generally fine and cool, with scattered clouds on and near coast and north of Port Augusta; winds from S.W. to S.E. at from 23 to 34 miles per hour; barometers risen slightly generally; sea smooth. Rainfall: Eucla, 0·20; Peak, 0·02; Farina, 0·01.

Victoria.—Fine generally, with fresh south-easterly winds, slightly risen barometers and smooth sea; foggy at Cape Otway; squally at Wilson's Promontory; heavy showers at Lake Entrance, with strong S.E. wind and rough sea. Rainfall: Lake Entrance, 1·02; Wilson's Promontory, 0·03.

Tasmania.—At Low Heads, barometer 29·03, light south winds and fine weather.

New Zealand.—Russell, barometer 29·7, wind W., weather gloomy; Wellington, barometer 29·5, wind N.W., weather fine; Bluff, barometer 29·4, wind calm, weather fine. Rainfall last night at Wellington measured 0·30.

New South Wales.—Weather cloudy and threatening rain generally; moderate rain falling generally during yesterday, and still raining in places on the coast. Barometer fallen two-tenths on coast; winds, southerly generally. Sea, smooth generally, but rising at Moruya. Stations not in map:—Candelo, rainfall 0.30; Temora, rainfall 0.30. Dubbo, E., fine, temperature 80°; Goulburn, E.S.E., showery, temperature 72°; Kiama, E.S.E., fine, temperature 70°; Newcastle, S., showery, smooth sea, temperature 71°; Port Macquarie, S., like rain, smooth sea, temperature 78°; Wentworth, S., fine, temperature 76°; Menindie, S., fine, temperature 86°; Deniliquin, S.E., fine warm, temperature 84°; Eden, S.E., fine, little sea, temperature 68°. (For particulars see map.)

Queensland.—Weather fine, with north-westerly winds. Sea smooth. Rainfall: Brisbane, 0.10.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.E., 18, fine but cloudy, temperature 76°; Cape Otway, E.S.E., 8, fine, moderate sea, temperature 72°; Portland, S.E., 34, fine, smooth sea, temperature 68°; Wilson's Promontory, S.E., 28, fine, squally, moderate sea, temperature 72°.

New South Wales.—Clarence River, S., 20, raining, smooth sea, temperature 75°; Moruya, S., 14, cloudy, rough sea, temperature 69°; Sydney, S.E., 14, showery, temperature 71°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet 3 inches above summer level; at Hay, below summer level, Darling: At Wilcannia, low; at Bourke 9 inches above summer level.

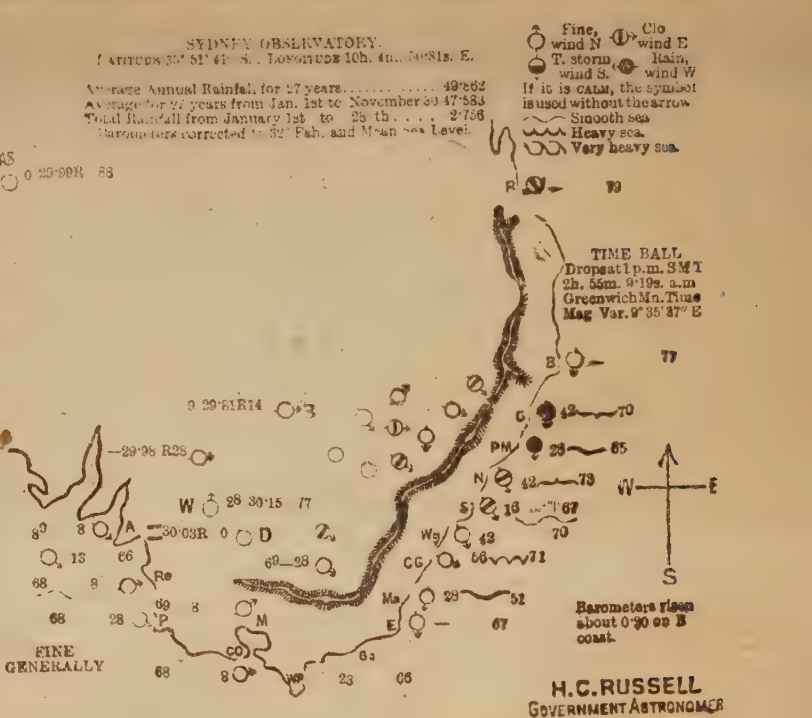
ASTRONOMICAL MEMORANDA FOR JANUARY 28.

Sun rises at 5.19, sets at 7.6; Moon rises at 12.2 a.m.; sets at 1.10 p.m.; Mercury, 3.53 a.m., 6.9 p.m.; Venus, 7.53 a.m., 8.21 p.m.; Mars, 9.28 p.m., 9.6 a.m.; Jupiter, 9.49 p.m., 9.58 a.m.; Saturn, 4.44 p.m., 3.38 a.m. New moon 5th, full moon 20th.

High water at Port Denison, January 29: 1.51 a.m., 2.20 p.m.

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 28, 1886

Stations	wt	Mx	mn	R'in
Albury		84	66	0
Armidale		66	57	0·83
Balranald		96	67	0
Bathurst	g	72	55	0·18
Bend'm'r	g	75	60	1·31
Bodalla ..	b	82	–	0·02
Bourke ..	b	93	66	0
C'nd'n H.	r	78	67	2·20
C. St. Geo.	b	74	60	0
Carcoar ..	b	72	61	0·14
Casino ..	u	96	65	1·30
Cassilis .	u	78	63	0·22
Clarence	r	93	68	0·88
C'nd'b'lin	b	82	53	0
Cooma ..	b	71	50	0·09
Coonab'n	–	–	–	—
C'nam ble	b	–	–	0·20
Cowra ..	b	83	61	0
Deniliq'n	d	95	58	0
Dubbo ..	b	88	64	0·02
Eden	b	73	41	0.31
Euston ..	b	92	68	0
Forbes ..	b	86	62	0
Gl'n Inn's	g	75	55	0·79
Goulburn	b	71	53	0·17
Grafton ..	b	87	66	1·02
Gulgong ..	u	80	61	0·12
Gunned'h	b	82	66	0·10
Hay	b	98	65	0
Hill End	u	–	–	0
Inverell ..	u	85	65	0·82
Kiandra	d	55	40	0·28
Lismore	c	90	70	0·83
Maitland	b	84	64	1·01
Marsdens	b	82	65	0
Menindie	d	89	72	0
Molong ..	b	83	55	0
Moree ..	b	85	67	0·14
Moruya ..	b	75	61	0·05
Moss Vale	r	67	54	0·48
Mt. Hope	b	76	71	0
M. Vict'ria	r	64	49	0·62
Mudgee ..	c	85	56	0
M'rr'm'bh	c	83	60	0·02
M'rr'r'ndi	u	73	64	0
Mus'br'k	b	85	61	0
Narrabri	o	95	56	1·12
Newcastle	c	80	66	0·35
Nowra ..	–	–	–	—
Orange ..	b	71	52	0
Picton ..	u	76	63	0·33
P. M'q'rie	r	80	62	3·23
P. St'ph'n	u	83	66	0·48
Q'nbeyan	b	71	57	0
Quirindi	c	80	65	0·02
Singleton	b	82	77	1·04
SYDNEY ..	o	75	65	1·95
Tamw'rth	b	76	63	0·30
Taralga ..	o	86	52	0.30
Taree	r	83	66	2·46
T'nt'rfield	c	87	60	0·95
Wagga ..	b	87	55	0
Walcha ..	u	68	54	0·86
Walgett ..	b	92	63	0·13
W'ntw'rth	b	81	67	0
Wilcannia	c	–	–	0
W'll'ng'ng	b	76	62	1·73
Young ..	b	82	55	0



H.C. RUSSELL
GOVERNMENT ASTRONOMER

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Western Australia.—On 27th, weather fine generally, winds from S.E. and S.W.; barometers at Albany, 30·01, steady; barometers at Perth, 29.95, fallen. Raining at Albany, and rain of previous day measured 0·07.

South Australia.—Generally fine and pleasant, with scattered clouds north of Barrow's Creek, and on and near the coast; S. and E. winds at from 13 to 23 miles per hour; rainfall, Daly Waters, 0·13; barometer slightly risen; sea smooth.

Victoria.—Fine generally, with slightly risen barometers, light easterly winds, and smooth sea; no rain. Echuca: Fine weather; barometer, 29·90; light S.S.E. winds.

Tasmania.—At Low Heads: Barometer risen to 30·07, with light N.N.E. wind, and heavy, gloomy sky.

New Zealand.—Russell, barometer 29·9, calm, weather gloomy; Wellington, barometer, 29·8, wind S.W.; weather gloomy; Bluff, barometer 29·7, wind S.W., weather fine.

New South Wales.—Weather, fine, with fresh S.E. winds generally; a general rain fell yesterday—heaviest on the coast; barometers, rising generally; sea, moderate generally, rough at Cape St. George. Stations not in map: Temora, weather fine and cool, rain 0·73; Camden, rain 0·52; Burwood, rain 1·67. At Burwood 0·57 rain fell in the storm on 26th, and only 0·26 at Sydney. At Homebush rain was very heavy, 2 inches said to have fallen. (For particulars see map.) Gabo Island (too late to go in map), wind S., 23 miles, fine weather, smooth sea, no rain, barometer 29·96, thermometer 66° at 9 a.m.

Queensland.—Weather, fine generally, with southerly winds and risen barometer, sea smooth. Rainfall, Brisbane, 1·72; rainfall, Rockhampton, 1.71; rainfall, Townsville, 0·31.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.W., 13, fine, temperature 77°; Cape Otway, E., 18, fine, rough sea, temperature 68; Portland, E.S.E., 28, fine, smooth sea, temperature 70°; Wilson's Promontory, N.E., 23, fine, moderate sea, temperature, 71°.

New South Wales.—Cape St. George, S.E., 72, fine, temperature 72°; Clarence River, S., 14, fine, moderate sea, temperature 74°; Deniliquin, E., fine, temperature 86°; Dubbo, E.S.E., 14, fine temperature 80°; Eden, E.S.E., 28, fine, smooth sea, temperature 69°; Goulburn, E.N.E., 14, dull, temperature 69°; Menindie, fine, hot, temperature 87°; Moruya, S.S.E., 28, fine, moderate sea, temperature 71°; Newcastle, S.S.E., 28, showery, moderate sea, temperature 66°; Port Macquarie, S., 42, cloudy, moderate sea, temperature 72°; Wentworth, N.W., 19, cloudy, sultry, temperature 81°. Heavy showers began at Sydney at 4 p.m. on Wednesday, and continued at intervals during the night, the total fall for the 24 hours being 1·95. Steady rain began at Morpeth on Wednesday at 5.30 p.m., and up to 9 p.m. 0·56 had fallen.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet 3 inches above summer level; at Hay, summer level; at Balranald, 6 inches below summer level. Murray: At Albury, 10 inches above summer level; at Euston, 4 feet above summer level. Darling: At Wentworth, 3ft 6 inches above summer level; at Pooncarie, low; at Menindie, dry; at Wilcannia, low; at Bourke, 9 inches above summer level.

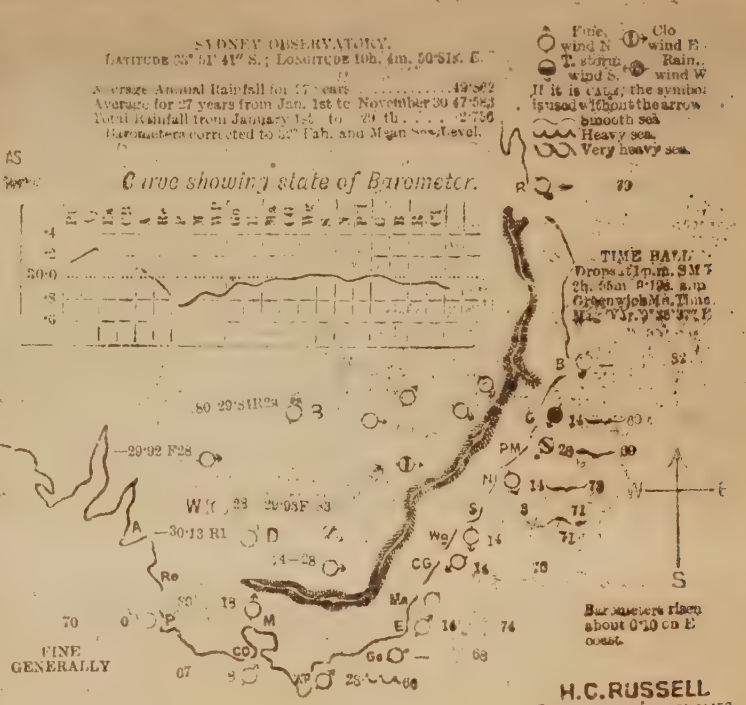
ASTRONOMICAL MEMORANDA FOR JANUARY 29.

Sun rises at 5.20, sets at 7.6; Moon rises at 12.44 a.m., sets at 2.6 p.m.; Mercury, 3.36 a.m., 6.11 p.m.; Venus, 7.49 a.m., 8.16 p.m.; Mars, 9.25 p.m., 9.2 a.m.; Jupiter, 9.44 p.m., 9.54 a.m.; Saturn, 4.40 p.m., 2.34 a.m. New moon 5th, full moon 20th.

High water at Fort Denison, January 29: 2.56 a.m., 3.31 p.m.

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 29, 1886

Stations	wt	Mx	Mn	rain
Albury	h	90	72	0
Armidale	b	70	55	0·04
Balranald	b	105	61	0
Bathurst	b	75	50	0
Bend'm'r	u	78	59	0·02
Bodalla	b	76	–	0
Bourke	b	98	62	0
C'md'n H.	g	75	66	0·72
C. St. Geo.	b	78	60	0
Carcoar	b	72	63	0
Casino	u	–	61	0·29
Cassilis	o	75	63	0
Clarence	r	86	65	0·50
C'nd'b'lin	g	86	54	0
Cooma	b	80	50	0·08
Coonab'n	h	84	55	0
Cram ble	b	–	–	0
Cowra	b	93	64	0
Denilig'n	b	98	69	0
Dubbo	b	89	62	0
Eden	b	72	60	0
Euston	b	99	72	0
Forbes	b	85	63	0
Gl'n Inn's	b	76	56	0·10
Goulburn	b	74	49	0
Grafton	b	78	62	0·13
Gulgong	c	78	53	0
Gunned'h	b	86	65	0
Hay	c	94	69	0
Hill End	b	–	–	0
Inverell	b	80	58	0
Kiandra	b	68	41	0·41
Lismore	r	78	65	0·44
Maitland	b	79	63	0·19
Marsdens	b	87	69	0
Menindie	d	92	77	0
Molong	b	89	56	0
Moree	b	93	65	0
Moruya	b	75	61	0·24
Moss Vale	b	67	49	0
Mt. Hope	b	75	69	0
M. Victoria	b	72	44	0
Mudgee	c	82	53	0
M'rr'm'bla	b	86	60	0
M'rr'ndi	b	75	63	0
Mus'br'k	b	84	58	0
Narrabri	b	86	56	0
Newcastle	b	76	68	0·22
Nowra	–	–	–	–
Orange	b	73	50	0
Picton	c	73	52	0
P. M'q'rie	c	75	62	0·51
P. St'ph'n	b	80	61	0·15
Q'beyan	–	–	–	–
Quirindi	c	88	60	0
Singleton	b	80	66	0·10
Sydney	c	76	63	0
Tamw'rth	b	78	55	0
Taralga	b	79	57	0
Taree	g	78	63	0·94
T'nt'rfield	b	71	52	0
Wagga	b	91	60	0
Walcha	u	68	52	0·18
Walgett	b	93	65	0
W'ntw'rth	b	98	74	0
Wilcannia	c	–	–	0
Will'ng'ng	b	77	61	0
Young	b	87	55	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt. Perth, Ad. Albany, Eu. Eucla, Cb. Cape Borda, A. Adelaide; Re. Robe; P. Portland; Pt. Melbourne, W. P. Wilson's Promontory, Go. Gabo; E. Eden; Ma. Moruya; C G Jervis Bay, Wg. Wollongong; S. Sydney, N. Newcastle, P M. Port Macquarie; C. Clarence River, B. Brisbane, R. Rockhampton; Ck. Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometric curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds precede them, and southerly following.

Western Australia.—Weather fine generally, with fresh easterly winds, high barometers, and moderately smooth sea; no rain.

Victoria.—Weather fine, with light north and north-east winds, low barometers, and smooth sea generally; misty at Cape Otway; squally, and rough sea at Wilson's Promontory; no rain.

Tasmania.—At Low Heads: Barometers fallen to 29·96, with strong N.N.E. wind and cloudy weather.

New Zealand.—Russell, barometer 29·8, wind N.W., weather cloudy and raining; Wellington, barometer 29·9, wind E., weather cloudy; Bluff, barometer 30·1, wind E., weather cloudy.

New South Wales.—Weather fine generally, moderate rain falling on coast and in places of country; winds easterly generally; barometers risen on coast, fallen in country; sea moderately smooth. Stations not in map: Moruya, wind N.E., maximum 87°, minimum 61°, fine weather. (For particulars see map.)

Queensland.—Fine weather, with southerly winds and calm barometer risen two-tenths on coast, sea smooth. No rain reported.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N., 18, fine, but cloudy, temperature 81°; Cape Otway, W.S.W., 13, thunderstorms, misty, moderate, temperature 71°; Portland, W., 34, fine but cloudy, smooth, temperature 69°; Wilson's Promontory, N.N.E., 23, fine, squally, moderate, temperature 76°.

New South Wales.—Cape St. George, N.E., 28, fine, temperature 75°; Clarence River, S.E., 14, fine, moderate, temperature 79°; Deniliquin, S.S.W., dull, temperature 82°; Dubbo, N.N.W., 14, fine, temperature 78°; Eden, N.E., 28, fine, smooth, temperature 71°; Goulburn, calm, 0, fine, temperature 71°; Moruya, N.E., 28, fine, moderate, temperature 73°; Newcastle, S.E., 14, fine, smooth, temperature 72°; Port Macquarie, S.E., 14, sultry, smooth, temperature 69°; Sydney, E., 10, fine but cloudy, smooth, temperature 73°; Wentworth, S.W., 23, fine, temperature 87°; Walgett, calm, 0, fine but cloudy, temperature 85°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet 2 inches above summer level; at Hay, summer level; at Balranald, below summer level. Murray: At Albury, 11 inches above summer level; at Easton, 4 feet 3 inches above summer level. Darling: At Wentworth, 3 feet 6 inches above summer level; at Pooncarie, low; at Menindie, dry; at Wilcannia, low; at Bourke, 9 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JANUARY 30.

Sun rises at 5.21, sets at 7.5; Moon rises at 1.26 a.m., sets at 3 p.m.; Mercury, 3.59 a.m., 8.13 p.m.; Venus, 7.45 a.m., 8.11 p.m.; Mars, 9.21 p.m., 8.57 a.m.; Jupiter, 9.40 p.m., 9.50 a.m.; Saturn, 4.36 p.m., 2.30 a.m. New moon 5th, full moon 20th.

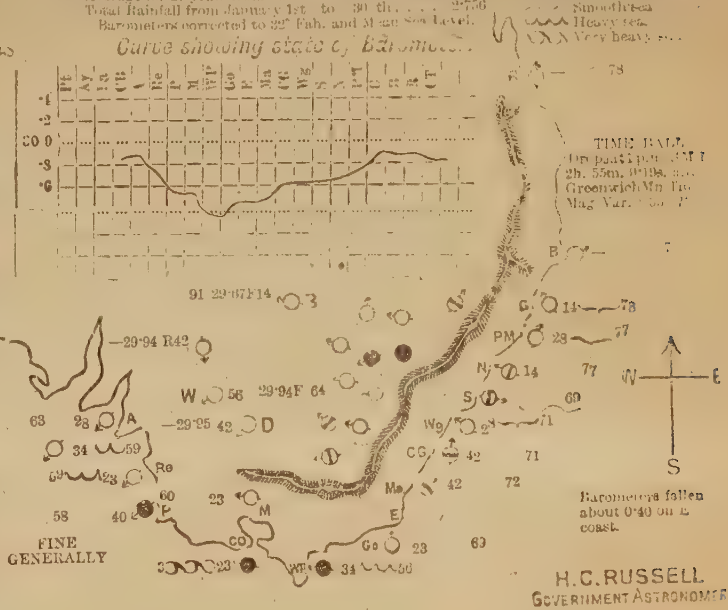
High water at Fort Denison: 4.7 a.m., 4.43 p.m.

METEOROLOGICAL REPORTS AND MAP FOR JANUARY 30, 1886.

Stations	wt	Mx	Mn	R'in
Albury	c	90	75	0·50
Armidale	b	76	58	0
Balranald	g	103	49	0
Bathurst	g	82	63	0·07
Bend'm'r	u	79	58	0
Bodalla ..	b	81	—	0·10
Bourke ..	b	105	71	0
C'md'n H.	b	75	67	0
C. St. Geo.	c	91	68	0·90
Carcoar ..	b	75	63	0·13
Casino ..	b	82	57	0
Cassilis .	c	80	64	0
Clarence	b	82	67	0
C'nd'b'lin	b	89	55	0·09
Cooma ..	c	87	52	0
Coonab'n	b	91	60	0
C'nam ble	b	—	—	0
Cowra ..	b	91	68	0·16
Deniliq'n	b	100	52	0·34
Dubbo ..	b	94	65	0·05
Eden	–	—	—	—
Euston ..	b	104	58	0
Forbes ..	b	88	66	0·07
Gl'n Inn's	u	81	58	0·09
Goulburn	b	87	56	0
Grafton ..	b	87	67	0
Gulgong	b	79	60	0·13
Gunned'h	b	90	66	0
Hay	b	99	59	0·01
Hill End	u	—	—	0
Inverell.	u	82	64	0
Kiandra	r	72	52	0·20
Lismore	b	84	64	0
Maitland	c	85	63	0
Marsdens	b	88	71	0·09
Menindie	b	97	69	0
Molong ..	b	85	64	0
Moree ..	b	88	69	0
Moruya ..	c	78	62	0·13
Mose Vale	b	75	66	0·05
Mt. Hope	b	71	63	0
M. Vict'ria	b	77	57	0·04
Mudgee ..	r	85	54	0·06
M'rr'm'bh	c	87	66	0·14
M'rr'r'ndi	b	81	66	0
Mus'lbr'k	b	85	60	0
Narrabri	b	92	64	0
Newcastle	g	79	65	0
Nowra ..	–	—	—	—
Orange ..	r	79	60	0·06
Picton ..	c	81	62	0·01
P. M'q'rie	b	79	64	0
P. St'ph'n	c	82	61	0
Q'nbeyan	b	82	66	0·07
Quirindi	b	93	61	0
Singleton	g	74	65	0
SYDNEY ..	c	76	66	0
Tamw'rth	–	—	—	—
Taralga ..	g	87	50	0·10
Taree	b	84	64	0
T'nt'rfield	c	82	59	0
Wagga ..	g	95	63	0·13
Walcha .	o	72	56	0
Walgett ..	b	99	73	0
W'ntw'rth	b	100	60	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	80	66	0·02
Young ..	b	90	63	0·08

SYDNEY OBSERVATORY.
Latitude 33° 51′ 41″ S.; Longitude 10h. 4m. 50·8s. E.

Average Annual Rainfall ......
Average for 27 years from Jan. 1st to November 30 47·583
Total Rainfall from January 1st to 30 th .... 2·756
Barometers corrected to 32° Fah. and Mean Sea Level.



H. C. RUSSELL,
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives **the** state of the weather at 9 a.m.. b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for ... hours. M'n the corresponding minimum temperature; ... hours. The symbols used in the map are explained on the margin. ... the wind symbol is placed like a vane pointing to the direction ... coming. A clear circle with it means fine weather; a ... weather; and a black spot, raining. Next to this symbol are ... the number of miles the wind is moving per hour, next, a symbol ... of the sea; and, lastly, figures denoting the shade temperature ... curve shows the state of barometers round the coast from Perth to Cooktown ... Perth; Ay, Albany; Fa, Fucla; CP, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; W.P, Wilson's Promontory; Go, Gabo; E, Eden; Mo, Moruya; ... Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; ... River; B, Brisbane; R, Rockhampton; ... is given in figures at Albury, Deniliquin, ... Springs. The barometer curve enables one at a glance to trace the depression, beginning with Western Australia and passing along eastwards, northerly winds preceding them, and southerly following.

South Australia.—Weather fine generally, with strong S.W winds, almost steady barometers and rough sea at Robe and Cape Borda. At M'Donnell Bay it is raining; rain yesterday, 0·16. Alice Springs, fine with S.E. wind, barometers reading 29·97.

Victoria.—Weather rainy and stormy generally, with strong westerly and W.S.W. winds and very low barometers. Tremendous sea at Cape Otway, and rough sea at Wilson's Promontory and at Lakes Entrance. Squally and windy on coast, fine inland. Rainfall: Melbourne, 0·25; Cape Otway, 0·37; Lakes Entrance, 0·01: Portland, 0·61. Wilson's Promontory reports thunderstorms and thundershowers from 4.30 p.m. yesterday till 4 a.m. to-day.

Tasmania.—At Low Heads: Barometers fallen six-tenths since yesterday, now reading 29·32, with cloudy weather and westerly winds.

New South Wales.—Weather fine generally, with fresh variable winds and calm; some rain fallen in places. Sea moderately smooth, and barometer fallen four-tenths on coast; almost steady inland. Station not in map: Temora: Rain 0·11; weather fine and cool. (For particulars see map).

New Zealand.—Russell, barometer 29·8, wind N., weather gloomy; Wellington, barometer 29·8, wind S.E., weather gloomy; Bluff, barometer 29.9, wind N.E., weather fine. Rainfall at Wellington, 2·75.

Queensland.—Weather fine generally, with variable winds or calm, and moderately smooth sea. Barometers fallen ... tenth generally. Rainfall: 0·65 at Townsville, ... raining.

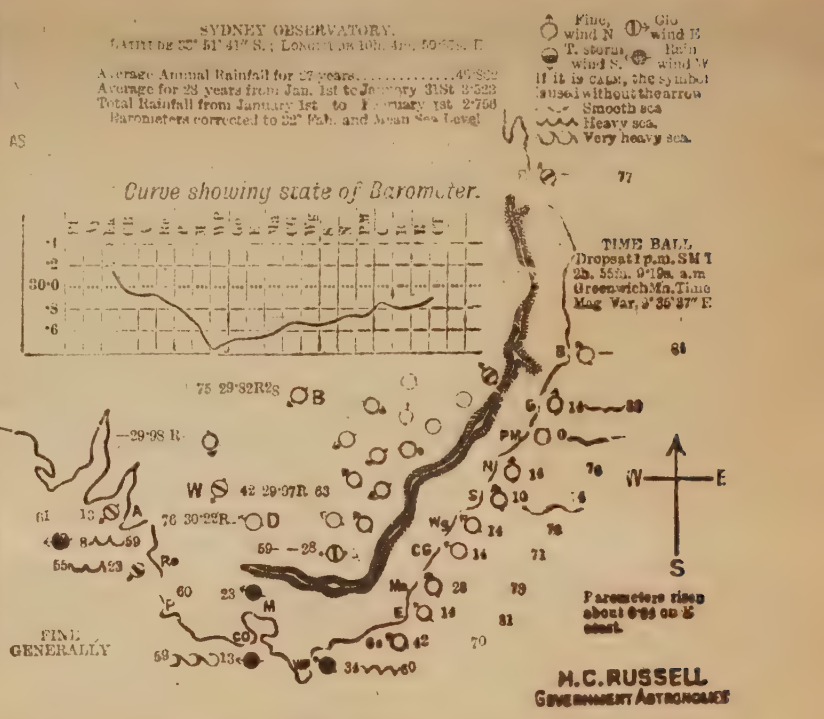
ASTRONOMICAL MEMORANDA FOR FEBRUARY 1.

Sun rises at 5.23, sets at 7.4; Moon rises at 2.59 a.m., sets at 4.39 p.m.; **Mercury, 4.5 a.m., 6.17 p.m.;** Venus, 7.38 a.m., 8.2 p.m.; **Mars, 9.14 p.m.,** 8.48 a.m.; **Jupiter,** 9.31 p.m., ... a.m.; **Saturn, 4.27 p.m., 2.21 a.m. New moon 5th, full moon 20th.**

High water at Fort Denison: 6.16 a.m., ... p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 1, 1886.

Stations	wt	Mx	mn	R'in
Albury		78	63	0·29
Armidale	b	78	60	0·01
Balranald	b	82	43	0
Bathurst	b	82	50	0·02
Bend'm'r	b	80	52	0·01
Bodalla ..	b	92	—	0
Bourke ..	b	90	—	0
C'md'n H.	b	86	70	0
C. St. Geo.	b	—	58	0
Carcoar ..	b	72	43	0
Casino ..	b	94	65	0·12
Cassilis .	b	82	53	0
Clarence	b	93	76	0
C'nd'b'lin	b	82	43	0
Cooma ..	c	76	45	0
Coonab'n	b	85	45	0
C'nam ble	b	—	—	0
Cowra ..	b	85	59	0
Deniliq'n	o	101	42	0
Dubbo ..	b	83	47	0
Eden	b	82	60	0
Euston ..	b	78	58	0
Forbes ..	b	80	55	0
Gl'n Inn's	g	72	53	0·53
Goulburn	b	75	50	0
Grafton ..	b	95	67	0
Gulgong	b	82	53	0
Gunned'h	b	91	61	0·03
Hay	b	94	50	0
Hill End	b	—	—	0
Inverell ..	b	81	64	0
Kiandra	f	51	31	0·62
Lismore	b	91	70	0·38
Maitland	b	92	69	0
Marsdens	b	92	62	0
Menindie	b	78	60	0
Molong ..	b	85	50	0
Moree ..	b	90	64	0·40
Moruya ..	b	82	62	0
Moss Vale	b	74	52	0
Mt. Hope	b	64	60	0
M. Vict'ria	b	83	45	0
Mudgee ..	b	92	44	0
M'r'm'bh	b	82	60	0
M'r'r'ndi	b	85	60	0
Mus'br'k	b	91	52	0·36
Narrabri	b	92	58	0·05
Newcastle	b	80	62	0
Nowra ..	—	—	—	—
Orange ..	b	78	44	0
Picton ..	b	82	57	0
P. M'q'rie	b	88	62	0
P. St'ph'n	b	86	61	0
Q'nbeyan	b	80	55	0
Quirindi	b	91	60	0·24
Singleton	b	91	64	0·10
Sydney ..	b	83	63	0
Tamw'rth	b	89	52	0
Taralga ..	b	79	48	0
Taree ..	b	91	67	0·55
Tot'nham	c	81	61	0·35
Wagga ..	c	81	52	0
Walcha ..	b	76	50	0
Walgett ..	b	105	58	0
W'twr'th	b	79	58	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	84	61	0
Young ..	b	88	53	0



H.C. RUSSELL.
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; r, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Eu, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Weather fine, and light S.E. wind. Rainfall: 0·43 at Albany. Barometer at Albany, 29·80.

South Australia.—Generally cloudy, and many places threatening rain and raining; west and south-westerly wind at from 23 to 34 miles per hour. Rain recorded light inland; heaviest at Mount Gambier, 1·10, and at Crafers, 0·88. Rough sea and slightly risen barometers on coast. Alice Springs barometer, 30·07; thermometer, 76.; wind, S.E.; weather, fine.

Victoria.—It will be seen by reference to the barometer curve that barometers are slowly rising, especially in the west; that the cold, wet, and almost wintry weather continues on the coast. There is scarcely any change in the barometers at Low Heads and Wilson's Promontory; they are still very low, Low Heads being 29.36. Weather rainy, and stormy generally, with very rough sea; low barometers. Rainfall: Melbourne, 0·27; foggy at Cape Otway; Wilson's Promontory, 0·25.

Tasmania.—At Low Heads: Barometer, 29·44; wind, S.W. and fine weather.

New Zealand.—Russell, Wellington. Bluff: Not in.

New South Wales.—Weather fine generally, with fresh westerly winds, slightly risen barometers, and smooth sea. Station not in map: Morangarell, wind west, max. 75, min. 60, weather fine. For further particulars see map.

Queensland.—Weather fine generally, with north-west winds, slightly risen barometers, and smooth sea. Heavy showers at Townsville. Rainfall: Townsville, 0·21; Rockhampton, 1·31; Brisbane, 0·24.

9 P.M. OBSERVATIONS.

Victoria.—Melbourne, barometer 29·64, W., 23, cloudy, squally, passing showers, temperature 65°; Cape Otway, barometer 29·69, W.S.W., 13, misty and raining, high sea, temperature 62°; Portland, fine interrupted; Wilson's Promontory, barometer 29·47, W., 28, cloudy and squally, rough sea, temperature 57°. The line has been interrupted to Portland all day, so we have no news of the weather there. In other parts of the coast the wintry wet weather continues, but winds are not so high. Barometer at Wilson's Promontory is still down to 29·47.

New South Wales.—Cape St. George, W., 42, fine, smooth sea, temperature 81°; Deniliquin, W., cool, temperature 55°; Dubbo, W., 14, fine, temperature 75°; Eden, N., 14, fine, smooth sea, temperature 70°; Goulburn, N.W., fine, temperature 69°; Menindie, S. 28, fine, temperature 75°; Newcastle, N.W., 28, fine, smooth sea, temperature 84°; Port Macquarie, E.S.E., 14, fine, smooth sea, temperature 83°; Sydney, W.N.W., 14, fine, smooth sea, temperature 85°; Wentworth, S.W., 42, cloudy and dull, temrature 68°; Walgett, S.W., fine, temperature 86°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet above summer level; at Hay, below summer level; at Balranald, 11 inches above summer level. Murray: At Albury, 11 inches above summer level; at Euston, 3 feet 8 inches above summer level. Darling: At Wentworth, 3 feet 3 inches above summer level; at Pooncarie, summer level; at Menindie, 3 feet above summer level; at Wilcannia, and Bourke, low.

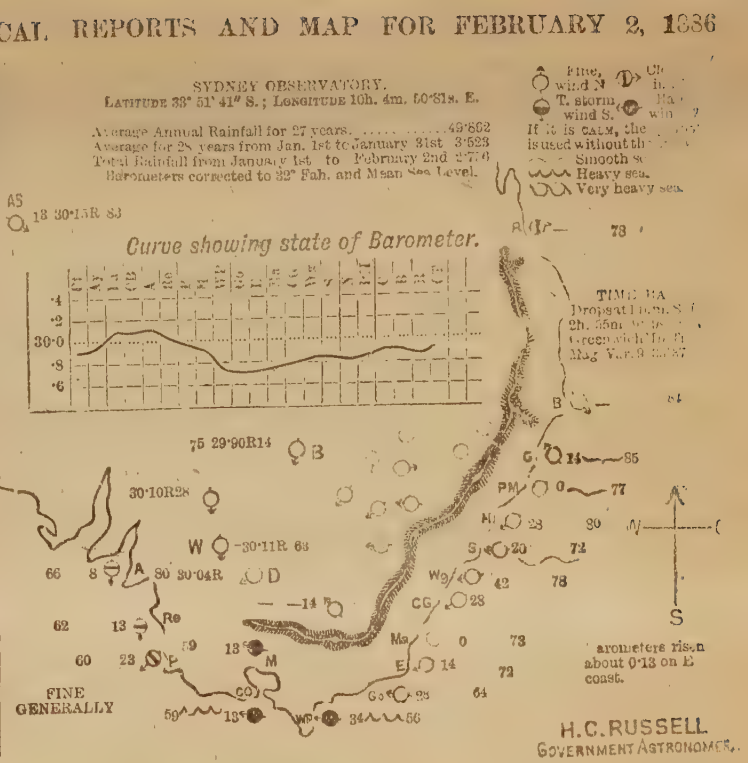
ASTRONOMICAL MEMORANDA FOR FEBRUARY 2.

Sun rises at 5.24, sets at 7.4; Moon rises at 5.39 a.m., sets at 5.29 p.m.; Mercury, 4.9 a.m., 6.19 p.m.; Venus, 7.23 a.m., 7.57 p.m.; Mars, 9.10 p.m., 8.43 a.m.; Jupiter, 9.27 p.m., 9.37 a.m.; Saturn, 4.23 p.m., 2.17 a.m. New moon 4th, full moon 19th.

High water at Fort Denison: 7.6 a.m., 7.39 p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 2, 1886

Stations	wt	Mx	Mn	R in
Albury	b	77	67	0·17
Armidale	b	87	54	0
Balranald	b	84	43	0
Bathurst	b	77	52	0
Bend'm'r	b	81	47	0
Bodalla	b	85	–	0·02
Bourke	b	93	57	0
C'md'n H.	b	83	64	0
C. St. Geo.	b	91	58	0
Carcoar	b	71	48	0
Casino	b	93	61	0
Cassilis	b	82	61	0
Clarence	b	93	68	0
C'nd'b'lin	b	78	46	0
Cooma	c	76	45	0·09
Coonab'n	b	84	[illegible]	0
C'nam ble	b	—	—	—
Cowra	b	82	61	0
Denilic'n	b	93	46	0
Dubbo	b	85	54	0
Eden	b	68	56	0·13
Euston	b	79	52	0
Forbes	b	78	55	0
Gl'n Inn's	b	83	48	0
Goulburn	b	75	51	0
Grafton	b	98	61	0
Gulgong	b	79	60	0
Gunned'h	–	—	—	—
Hay	b	79	53	0
Hill End	b	—	—	—
Inverell	b	83	53	0
Kiandra	c	51	40	0
Lismore	b	96	68	0
Maitland	b	91	69	0
Marsdens	b	82	65	0
Menindie	b	80	61	0
Molong	–	–	—	—
Moree	b	90	60	0
Moruya	b	86	56	0·01
Moss Vale	b	77	52	0
Mt. Hope	b	66	52	0
M. Vict'ria	b	77	49	0
Mudgee	b	84	50	0
M'rr'm'bh	b	78	57	0·01
M'rr'n'di	b	83	59	0
Mus'br'k	b	91	55	0
Narrabri	b	89	50	0
Newcastle	b	87	63	0
Nowra	b	87	59	0
Orange	b	72	50	0
Picton	b	84	55	0
P. M'q'rie	b	84	60	0
P. St'ph'n	b	88	58	0
Q'nbeyan	b	69	54	0·04
Quirindi	b	92	58	0
Singleton	b	92	73	0
Sydney	b	86	65	0
Tamw'rth	b	84	48	0
Taralga	b	88	62	0
Tarce	b	88	62	0
T'nt'rfield	b	82	50	0
Wagga	b	77	50	0
Walcha	b	73	46	0
Walgett	b	90	59	0
W'ntw'rth	b	77	55	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	87	62	0
Young	b	84	51	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.[illegible] gives the state of the weather at [illegible] standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; [illegible]; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Mx, gives the maximum temperature [illegible] reading in 24 hours. Mn the corresponding minimum temperature; r in, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next a symbol showing the state of the sea, and lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown.—Pt. Perth, Ay Albany, Ea Eucla, CB Cape Borda, Ad Adelaide, Ro Robe, P. Portland; M. Melbourne, WP Wilson's Promontory, Go Gabo I., Ja Jervis Bay, Wg. Wollongong, S. Sydney, N. Newcastle, LH. Port Macquarie; C. Clarence River, B. Brisbane, R Rockhampton, Cr. Coast vn. Ireland, the state of barometer is given by figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Barometers risen about 0·13 on E. coast.

9 A.M. OBSERVATIONS.

Western Australia.—At Esperance Bay, barometer 30·01, temperature 63°, with light N.E. wind, cloudy and threatening weather, and smooth sea. At Albany, fresh east wind and cloudy weather, temperature 68°. Perth and Carnarvon, southerly winds and fine weather.

South Australia.—Fine but cloudy generally; cloudy and threatening rain in places; south-west and south-east winds, at from 13 to 23 miles per hour; cloudy at Port Darwin; thunderstorms and thunder showers at Daly Waters; cold at Farina; max. temperature, 76°. Rainfall: M'Donnell Bay, 0·12; Port Darwin, 0·02; Daly Waters, 1·37.

Victoria.—Raining and cloudy generally, with fresh westerly winds; barometers risen about three-tenths, and rough sea at Wilson's Promontory and Cape Otway; squally and cold on coast. Rainfall: Melbourne, 0·09; Portland, 0·07; Cape Otway, 0·30; Wilson's Promontory, 0·40; Omeo, 0·20.

Tasmania.—At Low Heads, barometer, 29·64; W.S.W. wind and fine weather.

New Zealand.—General over the land; barometer, 30·0; wind, E. and S.; weather, fine.

New South Wales.—Weather fine generally, with light variable winds and calms, and smooth sea; barometers risen about one-tenth generally. Stations not in map: Morangarell, max. 83, min. 51, fine and cool; Bateman's Bay, light west wind, fine weather, and smooth sea. For particulars see map.

Queensland.—Weather fine generally, with variable winds and calm, steady barometers, and moderately smooth sea; gloomy sky at Rockhampton, sultry at Cooktown. Rainfall: Brisbane, 0·28°; Rockhampton, 0·81; Townsville, 0·92.

3 P.M. OBSERVATIONS.

Victoria.—Barometers rising. Melbourne, S., 6, cloudy, temperature 65°; Cape Otway, W., 12, misty, moderate sea, temperature 62°; Portland, S.W., 24, fine, smooth sea, temperature 61°; Wilson's Promontory, W.S.W., 36, squally, rough sea, temperature 62°.

New South Wales.—Cape St. George, E., 28, fine, temperature 72°; Clarence River, S.S.E., 14, fine, smooth sea, temperature 83°; Deniliquin, S., fine and cool, temperature 72°; Dubbo, S.W., 14, fine, temperature 76°; Goulburn, W., fine, temperature 68°; Menindie, S., 14, fine, temperature 74°; Moruya, N.E., 28, fine, smooth sea, temperature 72°; Newcastle, S.S.E., 28, fine, smooth sea, temperature 74°; Port Macquarie, S.E., 28, fine, temperature 82°; Sydney, E.S.E., 2, fine, smooth sea, temperature 75°; Wentworth, S., 14, fine, temperature 69°; Batemman's Bay, S.S.E., 14, fine, temperature 70°; Wagga, S.W., fine, temperature 80°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet 1 inch above summer level; at Hay, summer level; at Balranald, 1 foot 2 inches above summer level. Murray: At Albury, 1 foot above summer level; at Euston, 3 feet 4 inches above summer level. Darling: At Wentworth, 3 feet 1 inch above summer level; at Pooncarie, Menindie, and Wilcannia, low.

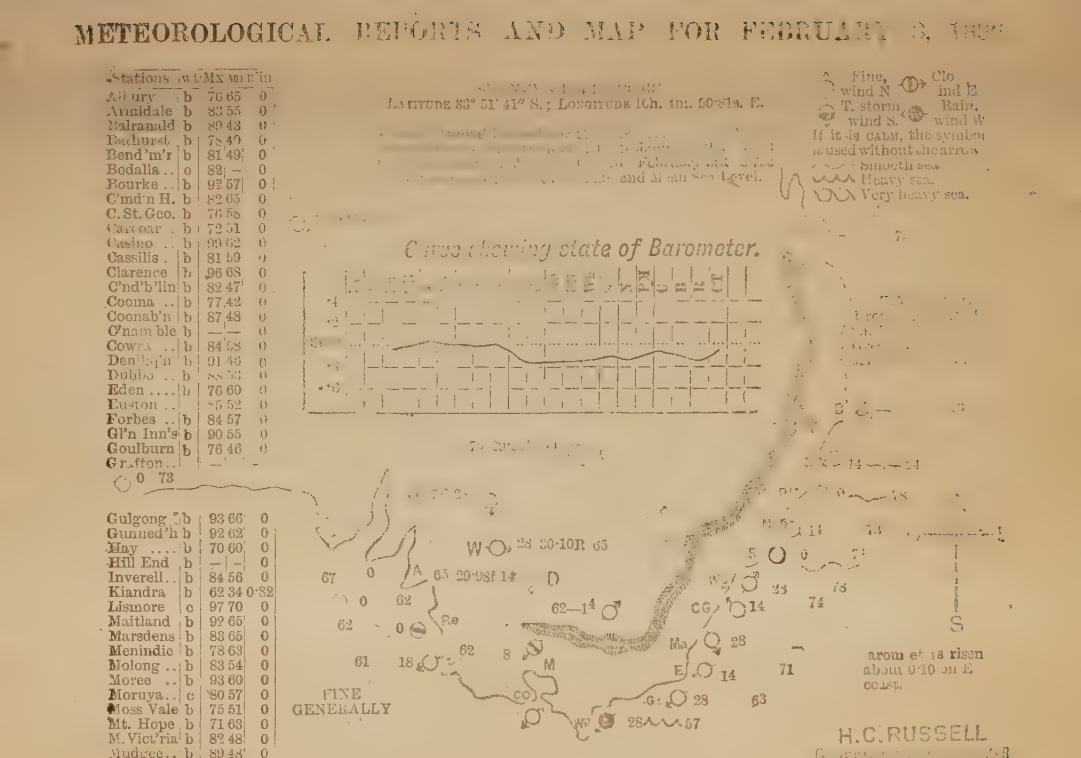
ASTRONOMICAL MEMORANDA FOR FEBRUARY 3.

Sun rises at 5.25, sets at 7.3; Moon rises at 4.4[illegible] a.m., sets at 6.6 p.m.; Mercury, 4.13 a.m., 6.21 p.m.; Venus, 7.28 a.m., 7.52 p.m.; Mars, 9.6 p.m., 8.38 a.m.; Jupiter, 9.[illegible] a.m., 9.[illegible] a.m.; Saturn, 4.19 p.m., 2.13 a.m. New moon 4th, full moon 19th.

High water at Port Denison: 7.19 a.m., 8.0 p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 3, 1879

Stations	W.T.	M'x	M'n	Rain
Albury	b	76	65	0
Armidale	b	83	55	0
Balranald	b	89	43	0
Bathurst	b	78	49	0
Bend'm'r	b	81	49	0
Bodalla	o	82	—	0
Bourke	b	92	57	0
C'md'n H.	b	82	65	0
C. St. Geo.	b	76	58	0
Carcoar	b	72	51	0
Casino	b	90	62	0
Cassilis	b	81	59	0
Clarence	b	96	68	0
C'nd'b'lin	b	82	47	0
Cooma	b	77	42	0
Coonab'n	b	87	48	0
C'nam ble	b	—	—	0
Cowra	b	84	58	0
Deniliq'n	b	91	46	0
Dubbo	b	88	53	0
Eden	b	76	60	0
Euston		76	52	0
Forbes	b	84	57	0
Gl'n Inn's	b	90	55	0
Goulburn	b	76	46	0
Grafton		—		
Gulgong	b	93	66	0
Gunned'h	b	92	62	0
Hay	b	70	60	0
Hill End	b	—	—	0
Inverell	b	84	56	0
Kiandra	b	62	34	0·82
Lismore	c	97	70	0
Maitland	b	92	65	0
Marsdens	b	83	65	0
Menindie	b	78	63	0
Molong	b	83	54	0
Moree	b	93	60	0
Moruya	c	80	57	0
Moss Vale	b	75	51	0
Mt. Hope	b	71	63	0
M. Vict'ria	b	82	48	0
Mudgee	b	89	48	0
M'r'm'bh	b	82	54	0
M'r'r'ndi	b	86	58	0
Mus'br'k	b	95	55	0
Narrabri	b	91	53	0
Newcastle	b	86	68	0
Nowra	b	87	56	0
Orange	b	73	47	0
Picton	b	83	52	0
P. M'q'rie	b	81	60	0
P. St'ph'n	b	84	61	0
Q'nbeyan	b	76	51	0
Quirindi	b	95	60	0
Singleton	b	89	75	0
Sydney	b	79	62	0
Tamw'rth	b	86	55	0
Taralga	b	83	44	0
Taree	b	87	63	0
Tum'rfield	b	84	57	0
Wagga	b	87	48	0
Walcha	b	76	49	0
Walgett	b	90	60	0
Wentw'rth	b	73	55	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	84	60	0
Young	b	88	59	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain, [illegible] threatening. The next column, M'x gives the maximum tempe[illegible] hours. M'n the corresponding minimum temperature; r, the rain for the [illegible] hours. The symbols used in the map are explained on the margin. At each consta[illegible] the wind symbol is placed [illegible] coming to the direction from which [illegible] coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne, W[illegible] Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C[illegible] [illegible] Mt Macquarie, C[illegible] River, B Brisbane, R, Rockhampton; C, Cooktown. Inland the state of barom[illegible] is given in [illegible] Deniliquin, Wentworth, Menindie, Bourke, and [illegible] Springs. The barometer curve enables one at a glance to trace the depressions, beginning with [illegible] passing eastwards, northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, barometer 29·83, thermometer 67, light west wind, cloudy and threatening weather, and smooth sea.

South Australia.—Generally fine north of Beltana, cloudy north of Tennant's Creek, winds from S.E. and N.E., fine and calm on coast. Rainfall: Catherine, 2·10; Port Darwin, 0·72. Raining at Daly Waters. Barometers fallen slightly on coast, sea smooth.

Victoria.—Weather fine generally, with light S.W. winds, rising barometers, and smooth sea, except at Wilson's Promontory, where it is rough, showery, and squally. Rainfall: Wilson's Promontory, 0·13; Cape Otway, 0·04. At Omeo, barometer 29·94, thermometer 66°; fresh S.W. wind and fine weather.

Tasmania.—At Low Heads, barometer 29·96, with fresh S.W. wind and fine weather.

New Zealand.—Russell: Barometer 29·9, wind N., weather cloudy. Wellington: Barometer 29·8, wind N.W., weather gloomy. Bluff: Barometer 29·5, wind N.E., weather fine. N.E. wind about 28 miles per hour, and showery on west coast.

New South Wales.—Weather fine generally, wind calm; barometers rising on coast, falling in country; sea smooth. Stations not in map: Bateman's Bay, S.E. wind, fine weather, smooth sea; and Morangarell, max. 77°, min. 55°, fine and clear. For particulars see map.

Queensland.—At Brisbane, S.E. wind and gloomy sky; at Rockhampton, N. wind and fine but sultry weather. Barometers rising slightly; sea smooth. Rainfall: Cape Moreton, 0·50".

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S. 12, fine, temperature 65°; Cape Otway, W.S.W., 8, fine, moderate sea, temperature 64°; Portland S.W., 23, fine, smooth sea, temperature 65°; Wilson's Promontory, W.S.W., 34, cloudy, squally, rough sea, temperature 68°.

New South Wales.—Cape St. George, E.S.E., 14, fine, smooth sea, temperature 74°; Clarence River, N.E., 28, fine, smooth sea, temperature 81°; Deniliquin, S.S.W., fine, temperature 74°; Dubbo, W., fine, temperature 79°; Goulburn, W., fine, temperature 72°; Moruya, S.E., 28, cloudy, smooth sea, temperature [illegible]; Newcastle, N.E., 14, fine, smooth sea, temperature 76°; [illegible] quarie, N.E., 42, fine, temperature 80°; Sydney, E., [illegible] smooth sea, temperature 76°; Wentworth, S., 14, fine, temperature 70°; Bateman's Bay, E., fine, temperature 69°; Wellington, S.W., fine, temperature 87°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 9 inches [illegible] level; at Hay, below summer level; at Balranald, [illegible] below summer level. Murray: At Albury, [illegible] level; at Euston, 3 feet above summer level; [illegible] worth, 2 feet 11 inches above summer [illegible], Menindie, and Wilcannia, low.

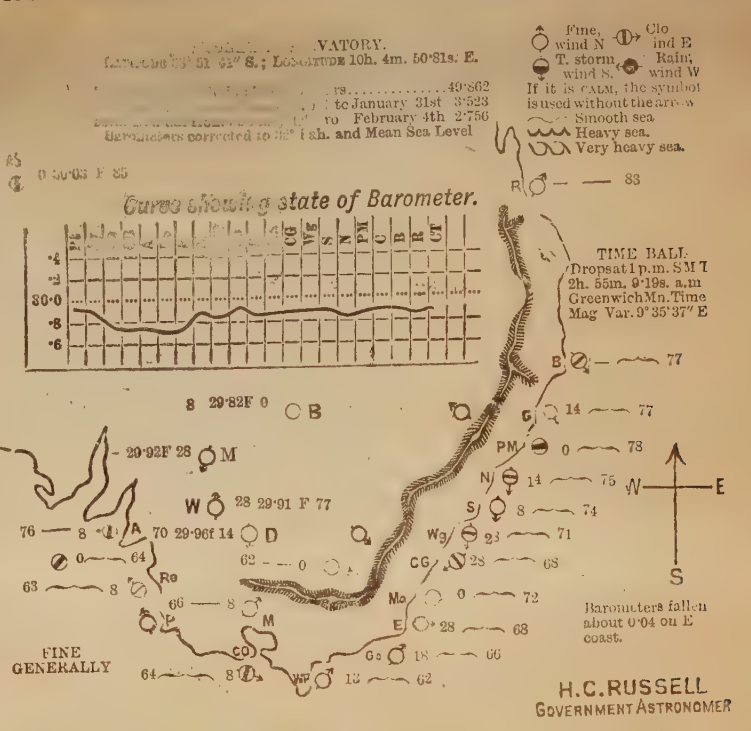
ASTRONOMICAL MEMORANDA FOR [illegible]

Sun rises at 5.26, sets at 7.2; Moon rises [illegible] at 6.46 p.m.; Mercury, 4.16 a.m., 6.23 p.m.; [illegible] 7.46 p.m.; Mars, 9.1 p.m., 8.34 a.m.; Jupiter, 9.19 p.m. a.m.; Saturn, 4.15 p.m., 2.9 a.m. New moon 4th, full [illegible] 19th.

High water at Fort Denison: 8.27 a.m., 8.45 p.m.

METEOROLOGICAL R[illegible] AND MAP FOR FEBRUARY 4, 1886.

Stations	wt	Mx	Mn	R'fn
Albury	b	81	—	0
Armidale	b	85	56	0
Balranald	b	96	50	f
Bathurst	b	85	48	0
Bend'm'r	b	85	49	0
Bodalla ..	g	81	—	0
Bourke ..	b	100	60	0
C'md'n H.	b	82	74	0
C. St. Geo.	b	75	64	0
Carcoar ..	b	75	57	0
Casino ..	b	94	66	0
Cassilis ..	b	85	61	0
Clarence	b	97	68	0
C'nd'b'lin	b	85	49	0
Cooma ..	b	84	42	0
Coonab'n	b	92	47	0
C'nam ble	b	—	—	0
Cowra ..	b	82	61	0
Deniliq'n	b	85	44	0
Dubbo ..	b	93	53	0
Eden	b	79	68	0
Euston ..	–	—	—	—
Forbes ..	b	89	54	0
Gl'n Inn's	b	93	59	0
Goulburn	b	85	57	0
Grafton ..	h	99	74	0
Ga-				
Gulgong	b	80	60	0
Gunned'h	b	96	65	0
Hay	b	85	57	0
Hill End	b	—	—	0
Inverell ..	b	86	62	0
Kiandra	b	66	35	0
Lismore	b	93	73	0
Maitland	–	—	—	—
Marsdens	b	88	62	0
Menindie	b	84	64	0
Molong ..	b	90	59	0
Moree ..	b	94	62	0
Moruya ..	b	75	52	0
Moss Vale	u	80	57	0
Mt. Hope	b	72	63	0
M. Vict'ria	b	88	51	0
Mudgee ..	b	92	49	0
M'rr'm'bh	b	88	55	0
M'rr'ndi	b	85	61	0
Mus'br'k	b	96	82	0
Narrabri	b	95	56	0
Newcastle	o	83	69	0
Nowra ..	c	85	65	0
Orange ..	b	78	47	0
Picton ..	b	86	61	0
P. M'q'rie	b	83	61	0
P. St'ph'n	b	86	63	0
Q'nbeyan	b	80	61	0
Quirindi	h	95	62	0
Singleton	b	89	70	0
SYDNEY ..	c	79	67	0
Tamw'rth	b	90	54	0
Taralga ..	b	79	53	0
Taree	b	90	64	0
T'nt'rfield	c	86	59	0
Wagga ..	b	88	50	0
Walcha ..	b	80	50	0
Walgett ..	b	96	61	0
W'ntw'rth	b	87	62	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	86	68	0
Young ..	b	91	51	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'fn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Fa, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine weather, light easterly winds, fallen barometers and smooth sea. Misty rain at Esperance Bay.

South Australia.—Cloudy, gloomy, and threatening rain on and near coast, scattered clouds and warm inland, overcast and sultry north of Alice Springs; winds westerly at from 13 to 23 miles an hour; barometers fallen from two to three tenths on coast, slightly inland. Rainfall: Yam Creek, 2·00; Catherine, 2·12; Daly Waters, 0·60, and steady rain to-day.

Victoria.—Fine weather, light easterly winds, fallen barometers, and smooth sea generally; hazy and heavy dew last night at Wilson's Promontory; hazy and gloomy at Cape Otway. No rain reported. Omeo: Barometer 29·82, calm, and fine weather.

Tasmania.—At Low Heads, barometer 29·82, fallen; thermometer 60°; fine but cloudy weather, with light W.N.W. wind.

New Zealand.—Wellington: Barometer 29·8, wind N.W., weather gloomy. Bluff: Barometer 29·7, wind N.W., weather fine.

New South Wales.—Fine weather and calm generally, with fallen barometer throughout, smooth sea, and no rain. Stations not in map:—Morangarell, max., 80°; min., 55°; weather fine and calm; Bateman's Bay, temperature 9 a.m., 68°; weather fine and calm, sea smooth. For further particulars see map.

Queensland.—Generally fine weather, variable winds, fallen barometers, and smooth sea. Rainfall: Brisbane, 0·07; Townsville, 0·02.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, barometers falling, N., 12, cloudy, temperature 78°; Cape Otway, W., 6, cloudy, smooth sea, temperature 71°; Portland, N.E., 18, threatening rain, smooth sea, temperature 70°; Wilson's Promontory, W., 18, threatening rain, smooth sea, temperature 68°.

New South Wales.—Cape St. George, S.E., 14, fine, smooth sea, temperature 76°; Clarence River, N.E., fine, smooth sea, temperature 71°; Deniliquin, S., 28, fine and hot, temperature 79°; Dubbo, E., fine, temperature 82°; Eden, N.E., 14, fine, smooth sea, temperature 70°; Menindie, S., fine, temperature 83°; Moruya, N.E., 28, fine, smooth sea, temperature 74°; Newcastle, S.E., 14, fine, smooth sea, temperature 75°; Port Macquarie, N.N.E., 42, hazy, moderate sea, temperature 77°; Sydney, E., 10, fine, smooth sea, temperature 77°; Wentworth, N.W., 28, fine, temperature 78°; Bateman's Bay, S.E., 42, fine, temperature 74°; Walgett, fine and hot, temperature 95°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet above summer level; at Hay, summer level; at Balranald, below summer level. Murray: At Albury, 2 feet 11 inches above summer level. Darling: At Wentworth, 2 feet 2 inches above summer level; at Poonarie, summer level; Menindie, and Wilcannia, low.

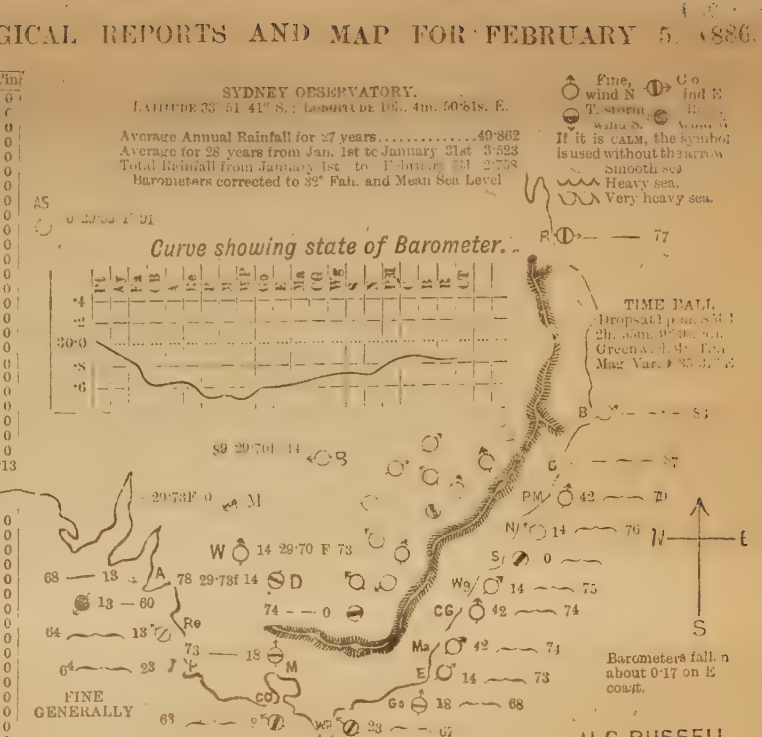
ASTRONOMICAL MEMORANDA FOR FEBRUARY 5.

Sun rises at 5.27, sets at 7.1; Moon rises at 6.24 a.m., sets at 7.22 p.m.; Mercury, 4.30 a.m., 6.25 p.m.; Venus, 7.19 a.m., 7.41 p.m.; Mars, 5.57 p.m., 8.29 a.m.; Jupiter, 9.15 p.m., 9.25 a.m.; Saturn, 4.11 p.m., 2.5 a.m. New moon 4th, full moon 19th.

High water at Fort Denison: 9.3 a.m., 9.20 p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 5, 1886.

Stations	wt	Mx	mn	R'in
Albury	c	88	—	0
Armidale	b	89	62	0
Balranald	g	104	50	0
Bathurst	b	89	50	0
Bend'm'r	b	87	59	0
Bodalla ..	b	84	—	0
Bourke ..	b	106	59	0
C'md'n H.	b	83	75	0
C. St. Geo.	b	80	62	0
Carcoar ..	b	77	56	0
Casino ..	b	94	62	0
Cassilis ..	c	82	63	0
Clarence	b	96	68	0
C'nd'b'lin	o	85	42	0
Cooma ..	b	92	50	0
Coonab'n	h	96	49	0
C'nam ble	b	—	—	0
Cowra ..	b	95	58	0
Deniliq'n	g	98	56	0
Dubbo ..	b	96	56	0
Eden	c	74	66	0
Euston ..	g	100	55	0
Forbes ..	b	92	60	0
Gl'n Inn's	b	98	59	0
Goulburn	b	89	52	0
Grafton ..	b	95	69	0·13
Gulgong	g	85	60	0
Gunned'h	b	100	68	0
Hay	c	95	61	0
Hill End	b	—	—	0
Inverell ..	b	90	67	0
Kiandra	c	69	45	0
Lismore	b	90	68	0
Maitland	b	87	64	0
Marsdens	b	95	70	0
Menindie	g	93	73	0
Molong ..	b	85	63	0
Moree ..	b	102	70	0
Moruya ..	c	77	54	0
Moss Vale	b	80	60	0
Mt. Hope	b	92	71	0
M. Vict'ria	c	86	55	0
Mudgee ..	g	95	52	0
M'rr'm'bh	b	91	57	0
M'rr'ndi	b	88	58	0
Mus'br'k	b	95	64	0
Narrabri	b	99	62	0
Newcastle	b	90	70	0
Nowra ..	-	—	—	—
Orange ..	b	78	47	0
Picton ..	b	85	53	0
P. M'q'rie	b	83	71	0
P. St'ph'n	b	89	64	0
Q'nbeyan	b	83	61	0
Quirindi	b	105	71	0
Singleton	b	90	65	0
Sydney ..	c	80	67	0
Tamw'rth	b	94	62	0
Taralga ..	b	93	58	0
Taree	b	89	69	0
T'nt'rfield	b	91	59	0
Wagga ..	b	95	62	0
Walcha ..	b	84	58	0
Walgett ..	b	100	65	0
W'ntw'rth	c	98	63	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	73	64	0
Young ..	b	97	54	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., 'b' standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Fine generally, with southerly winds slightly risen barometers, and smooth sea. Gloomy at Albury; threatening rain at Esperance Bay. No rain reported.

South Australia.—Generally cloudy and gloomy, threatening rain between Farina and Alice Springs; barometers fallen generally; N. and W. winds from 13 to 23 and 34 miles per hour. Sea smooth. Rainfall: Catherine, 1·33; Port Darwin, 1·21; Daly Waters, 0·65, Cape Borda, 0·16, and raining this morning.

Victoria.—Cloudy generally, with fresh N. and N.W. winds barometers fallen about three-tenths; sea smooth, misty at Cape Otway; squally and threatening rain at Wilson's Promontory rain at Melbourne, 0·01. Inland stations.—Omeo: Barometer 29·62, N.N.E. wind, and cloudy weather. Echuca,: Barometer, 29·55, S.W. wind and cloudy weather.

Tasmania.—At Low Heads, barometer 29·51, fallen three-tenths; light N.W. wind and cloudy weather. Rainfall, 0·12.

New Zealand.—Weather fine generally. Barometer at Russell, 29·9, with S. wind; Wellington, 29·8, with N.W. wind; Bluff, 29·9, with W. wind.

New South Wales.—Weather fine, with light northerly winds and calms, fallen barometer, and smooth sea generally. Stations not in map:—Morangarell, max. 93°, min. 67°, wind N.W., fine and clear; Bateman's Bay, barometer 29·70, thermometer 72°, S.E. wind, fine weather, and smooth sea. For particulars see map.

Queensland.—Weather fine, with easterly winds, fallen barometers, and smooth sea generally. Rainfall: Townsville, 1·65; Rockhampton, 0·29; Cape Moreton, 0·11; Cooktown, 0·02; Brisbane, 0·03.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, N.N.E., 42, cloudy, smooth sea, temperature 76°; Deniliquin, S.W., dull, temperature 84°; Dubbo, N.W., 42, fine, temperature 82°; Eden, N., 1, fine, smooth sea, temperature 77°; Dubbo, calm and cloudy temperature 87°; Goulburn, W.N.W., fine, temperature 81·4 Menindie, N., close but fine, temperature 85°; Moruya, N.E., 42, cloudy, gloomy, smooth sea, temperature 76°; Newcastle, N.N.E. 14, fine, smooth sea, temperature 82°; Port Macquarie, N.N.E., 18, calm, smooth sea, temperature 82°; Sydney, E.N.E., 16, fine but cloudy, smooth sea, temperature 82°; Wentworth, W., dull, like rain, temperature 76°, Bateman's Bay, E.S.E., 28, fine, temperature 80°; Walgett, N.W., 14, fine and hot, temperature 8°. Hay reports, at 1.35 p.m.: Barometer, 29·613, and falling; wind very strong, northerly; air dark with dust; think terrific storm advancing. Albury: Barometer commenced falling at 10 a.m.; at 3 p.m. strong westerly wind blowing, with dust. At 8 p.m. Walgett reports: Black clouds rising in S.W., very close and hot, and calm.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet above summer level; at Hay, 1 foot 6 inches above summer level; at Balranald, 1 foot above summer level. Murray: At Albury, 3 feet above summer level; Murray, 2 feet 4 inches above summer level. Darling: At Wentworth, 2 feet 5 inches above summer level; at Poonearie, and Menindie, summer level; at Wilcannia and Bourke, low.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 6.

Sun rises at 5.28, sets at 7; Moon rises at 7.17 a.m., sets at 7.57 p.m.; Mercury, 4.24 a.m., 6.27 p.m.; Venus, 7.14 a.m., 7.36 p.m.; Mars, 8.53 p.m., 8.24 a.m.; Jupiter, 9.11 p.m., 9.21 a.m.; Saturn, 4.7 p.m., 2.1 a.m. New moon 4th, full moon 19th.

High water at Fort Denison, February 6: 9.37 a.m., 9.53 p.m

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 6, 1886.

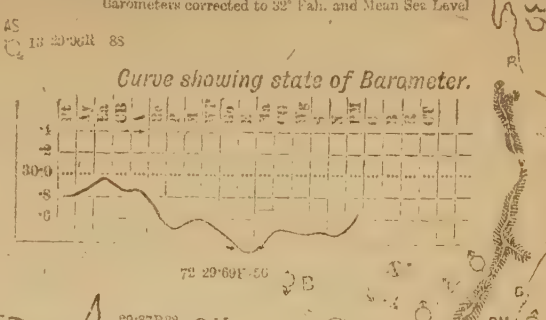
Stations	wt	M'x	m'n	r'n
Albury	c	82	—	0·06
Armidale	b	90	66	0
Balranald	b	101	50	0
Bathurst	b	92	64	0
Bend'n'r	b	90	67	0
Bodalla ..	c	89	—	0
Bourke ..	b	112	66	0
C'md'n H.	b	85	74	0
C. St. Geo.	c	46	69	0
Carcoar ..	b	82	59	0
Casino ..	b	96	72	0
Cassilis ..	b	91	75	0
Clarence	–	—	—	—
C'nd'b'lin	b	95	49	0
Cooma ..	c	89	42	0·04
Coonab'n	b	98	68	0
C'nam ble	–	—	—	—
Cowra ..	b	97	66	0
Deniliq'n	b	94	44	0
Dubbo ..	b	104	61	0
Eden	u	80	61	0
Euston ..	b	97	43	0
Forbes ..	b	90	62	0
Gl'n Inn's	b	97	62	0
Goulburn	b	94	58	0
Grafton ..	–	—	—	—
Gulgong	c	88	63	0
Gunned'h	c	103	73	0
Hay	b	97	52	0
Hill End	b	—	—	0
Inverell ..	c	92	68	0
Kiandra	b	71	46	0·27
Lismore	b	97	72	0
Maitland	c	101	74	0
Marsdens	b	97	66	0
Menindie	c	92	63	0
Molong ..	g	91	54	0
Moree ..	b	98	70	0
Moruya ..	b	82	55	0
Moss Vale	b	88	64	0
Mt. Hope	b	84	61	0
M. Vict'ria	b	87	61	0
Mudgee ..	c	97	60	0
M'rr'm'bh	c	93	64	0
M'rr'ndi	b	91	58	0
Mus'br'k	b	105	77	0
Narrabri	h	105	69	0
Newcastle	b	93	78	0
Nowra ..	h	92	71	0
Orange ..	b	86	60	0
Picton ..	h	96	66	0
P. M'q'rie	h	83	70	0
P. St'ph'n	b	90	71	0
Q'nbeyan	b	89	61	0
Quirindi	b	100	75	0
Singleton	b	92	80	0
Sydney ..	h	88	75	0
Tamw'rth	b	94	68	0
Taralga ..	b	81	50	0
Taree	b	94	72	0
T'nt'rfield	b	94	58	1·43
Wagga ..	b	92	57	0
Walcha ..	b	84	63	0
Walgett ..	b	107	75	0
W'ntw'rth	b	91	53	0
Wilcannia	–	—	—	—
W'll'ng'ng	b	83	74	0
Young ..	c	96	60	0

SYDNEY OBSERVATORY.

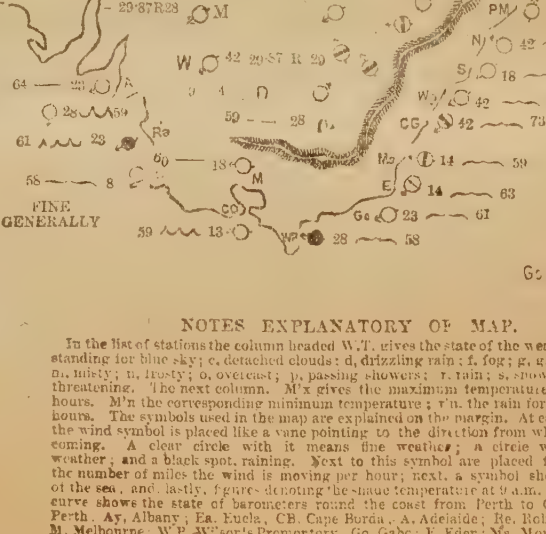
LATITUDE 33° 51′ 41″ S.; LONGITUDE 15h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 28 years from Jan. 1st to January 31st 3·523
Total Rainfall from January 1st to February 6th 2·758
Barometers corrected to 32° Fah. and Mean Sea Level

Fine, wind N
T. storm, wind S.
Clo ind E
Rain, wind W
If it is CALM, the symbol is used without the arrow
Smooth sea.
Heavy sea.
Very heavy sea.



TIME BALL Drops at 1 p.m. SMT 9h. 55m. 9·1s. G. Greenwich Mn. Time Mag. Var. 9° 35′ E.



Barometers fallen about 0·25 on E coast.

H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—P't, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland, the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—Weather fine generally, with light variable winds, fallen barometers, and smooth sea. No rain reported.

South Australia.—Generally more or less cloudy between Beltana and Barrow Creek; west and south winds from 23 to 34 miles per hour; light rain recorded on and near coast, greatest at Barker, 0·75, and in S.E. 0·30. Barometers risen; sea rough at Cape Borda; raining at M'Donnell Bay.

Victoria.—Weather fine generally, with fresh westerly winds; slightly risen barometers, and smooth sea; showery at Wilson's Promontory; misty and rough sea at Cape Otway; squally at Melbourne. Rainfall—Melbourne, 0·23; Cape Otway, 0·85; Portland, 0·65.

Tasmania.—At Low Heads, barometer 29·37, fallen slightly; fresh westerly wind and fine weather. Temperature, 60; rain, 0·47.

New Zealand.—General over the land; barometer, 30·0; winds light from S. or calm; weather fine.

New South Wales.—Weather fine generally, with strong westerly winds; low barometers, and smooth sea. Stations not in map:—Girilambone, west wind, fine weather; Mount Agarell, maximum 98°, minimum 65°, cloudy weather; Batemans Bay, west wind, and fine weather. For particulars see map.

Queensland.—Brisbane, N.E., fine, temperature 82°, barometer 29·79. Rockhampton, 29·79, temperature 77°, wind S.W., sultry; rain, 0·15. Townsville, 29·85, temperature 70°, rain 0·06, smooth sea. Cooktown, 29·76, temperature 102°, calm, fine, smooth sea.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, W., 12, misty, high sea, temperature 62°; Wilson's Promontory, W.N.W., 42, squally with rain, rough sea.

New South Wales.—Cape St. George, N.W., 30, fine, temperature 74°; Clarence River, N.E., 20, fine, smooth sea, temperature 82°; Deniliquin, S.W., 14, fine, temperature 75°; Dubbo, S.W., 28, fine, temperature 78°; Eden, S.E., 14, fine, little east sea, temperature 73°; Balranald, S.W., 14, fine; Goulburn, N.W., fine, temperature 71°; Menindie, S.W., fine, temperature 74°; Moruya, S.E., 28, fine, moderate sea, temperature 67°; Newcastle, S.E., 30, fine, smooth sea, temperature 76°; Port Macquarie, N.N.E., 30, hazy, fine, moderate sea, temperature 79°; Sydney, S.E., 20, fine; Wentworth, W., 30, fine, cool, temperature 67°; Walgett, S., 10, fine, temperature 90°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet above summer level; at Hay, 1 foot above summer level; at Balranald, 1 foot above summer level. Murray: At Albury, 2 feet 3 inches above summer level. Darling: At Wentworth, 2 feet 1 inch above summer level; at Pooncarie, Menindie, Wilcannia, and Bourke, low.

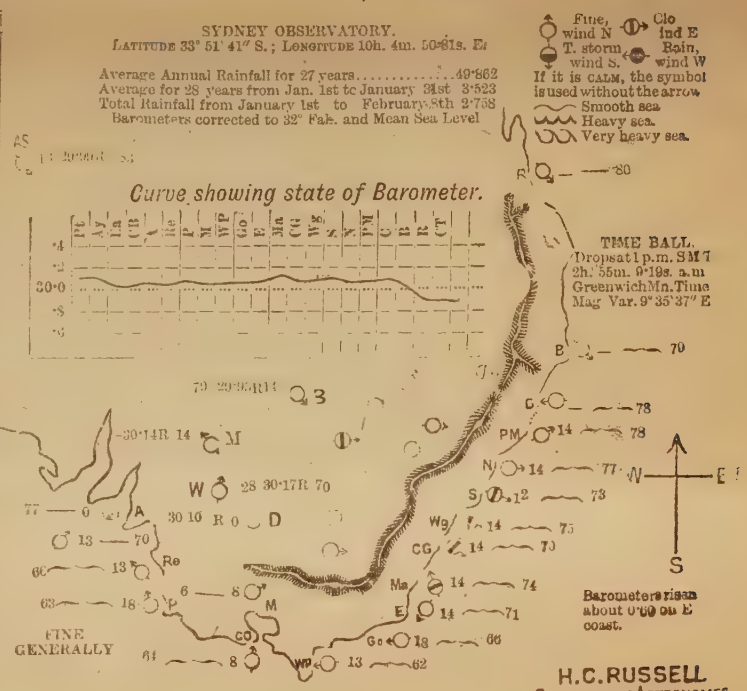
ASTRONOMICAL MEMORANDA FOR FEBRUARY 8.

Sun rises at 5.30, sets at 6.58; Moon rises at 9.6 a.m., sets at 9.2 p.m.; Mercury, 4.31 a.m., 6.30 p.m.; Venus, 7.4 a.m., 7.24 p.m.; Mars, 8.44 p.m., 8.15 a.m.; Jupiter, 9.3 p.m., 9.13 a.m.; Saturn, 3.58 p.m., 1.52 a.m. New moon 4th, full moon 19th.

High water at Fort Denison, February 8: 10.42 a.m., 10.58 p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 8, 1886.

Stations	w.t.	Mx.	m.	r. in.
Albury	b	78	—	0
Armidale	b	88	55	0
Balranald	b	94	39	0
Bathurst	b	81	43	0
Bend'm'r	b	90	48	0
Bodalla ..	o	83	—	0
Bourke ..	b	97	55	0
C'md'n H.	c	90	68	0
C. St. Geo.	c	77	64	0
Carcoar ..	b	75	51	0
Casino ..	b	89	70	0
Cassilis ..	b	83	53	0
Clarence ..	h	90	66	0
C'nd'b'lin	b	83	45	0
Cooma ..	c	83	39	0
Coonab'n	b	91	46	0
C'nam ble	b	—	—	0
Cowra ..	b	90	55	0
Deniliq'n	b	93	41	0
Dubbo ..	h	90	53	0
Eden	b	75	52	0
Euston ..	b	86	53	0
Forbes ..	b	82	50	0
Gl'n Inn's	c	93	55	0
Goulburn	b	79	52	0
Grafton ..	c	102	73	0
Ea-				
Gulgong	b	81	62	0
Gunned'h	b	99	62	0
Hay	b	81	35	0
Hill End	b	—	—	0
Inverell ..	b	90	58	0
Kiandra	c	65	36	0
Lismore	b	89	75	0
Maitland	b	104	68	0·04
Marsdens	o	85	66	0
Menindie	b	79	62	0
Molong ..	b	88	49	0
Mores ..	b	98	63	0
Moruya ..	o	80	62	0
Moss Vale	u	78	56	0
Mt. Hope	b	70	61	0
M. Victoria	c	83	45	0
Mudgee ..	b	88	45	0
M'rr'm'bh	b	86	52	0
M'rr'r'ndi	b	91	60	0
Mus'br'k	b	94	63	0
Narrabri	h	100	53	0
Newcastle	b	82	70	0
Nowra ..	c	86	52	0
Orange ..	b	74	47	0
Picton ..	u	86	59	0
P. M'q'rie	b	82	67	0
P. St'ph'n	b	93	61	0
Q'nbeyan	b	75	48	0
Quirindi	b	103	60	0
Singleton	b	95	68	0
Sydney ..	c	81	67	0
Tamw'rth	b	91	61	0
Taralga ..	b	90	58	0
Taree	b	86	67	0
T'nt'rfield	u	88	61	0
Wagga ..	b	85	46	0
Walcha ..	b	70	48	0
Walgett ..	b	—	55	0
W'ntw'rth	b	83	57	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	83	64	0
Young ..	b	89	61	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Weather fine, with light south-easterly winds, risen barometers, and smooth sea generally. No rain reported.

South Australia.—Generally fine, with scattered clouds and light northerly winds; cloudy north of Daly Waters, light south-east winds north of Peake: sea smooth; barometers risen about 2·10ths on coast. Rainfall: Daly Waters, 0·08; Robe, 0·02.

Victoria.—Fine generally, with light northerly winds, risen barometers, and smooth sea. Echuca, barometer 29·91, temperature 62°, wind S.W., weather fine; Omeo, barometer 30·06, temperature 63°, calm, fine. Rainfall: Echuca, 0·17; Melbourne, 0·14; Portland, 0·05; Wilson's Promontory, 0·46.

Tasmania.—At Low Heads, barometer 30·04, risen; light west wind, temperature 61, and fine weather.

New Zealand.—Russell, barometer 30·1, wind S.E., cloudy, with passing showers; Wellington, barometer 30·1, wind N.W., fine; Bluff, 30·0, wind S., heavy, gloomy sky.

New South Wales.—Weather fine generally, with light easterly winds; risen barometers, and smooth sea. Stations not in map:—Morangarell, maximum 76°, minimum 55°, calm and fine; Bateman's Bay, west wind, fine weather, and smooth sea, temperature, 66°. For particulars see map.

Queensland.—Weather fine generally, with south-east winds, risen barometers, and smooth sea; raining at Cooktown.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, E.N.E., 14, fine, smooth sea, temperature 77°; Clarence River, S.E., 14, fine, smooth sea, temperature 81°; Deniliquin, S., fine, temperature 80°; Dubbo, E., fine, temperature 81.; Eden, N.E., 14, fine and clear, smooth sea, temperature 69°; Bateman's Bay, N.E., 42, fine, smooth sea, temperature 72°; Goulburn, N.E., fine, temperature 72°; Menindie, calm, fine, and warm, temperature 82°; Moruya, N.E., 28, fine but cloudy, smooth sea, temperature 70°; Newcastle, N.E., fine, smooth sea, temperature 75°; Port Macquarie, N.E., 28, fine, smooth sea, temperature 81°; Sydney, E., 16, fine, smooth sea, temperature 76°; Wentworth, W., 14, cloudy and hazy, temperature 82°; Walgett, calm, fine, temperature 99°.

Victoria.—Melbourne, S., fine, temperature 73°; Cape Otway, S.S.W., 8, fine and hazy, smooth sea, temperature 73°; Portland, S.W., 18, fine, smooth sea, temperature 72°; Wilson's Promontory, S.W., 18, fine, smooth sea, temperature 66°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 4 inches above summer level; at Hay, 1 foot above summer level; at Balranald, 1 foot 3 inches above summer level. Murray: At Euston, 1 foot 8 inches above summer level. Darling: At Wentworth, 2 feet 2 inches above summer level; at Pooncarie and Menindie, low; at Wilcannia, 2 feet 10 inches above summer level; at Bourke, low.

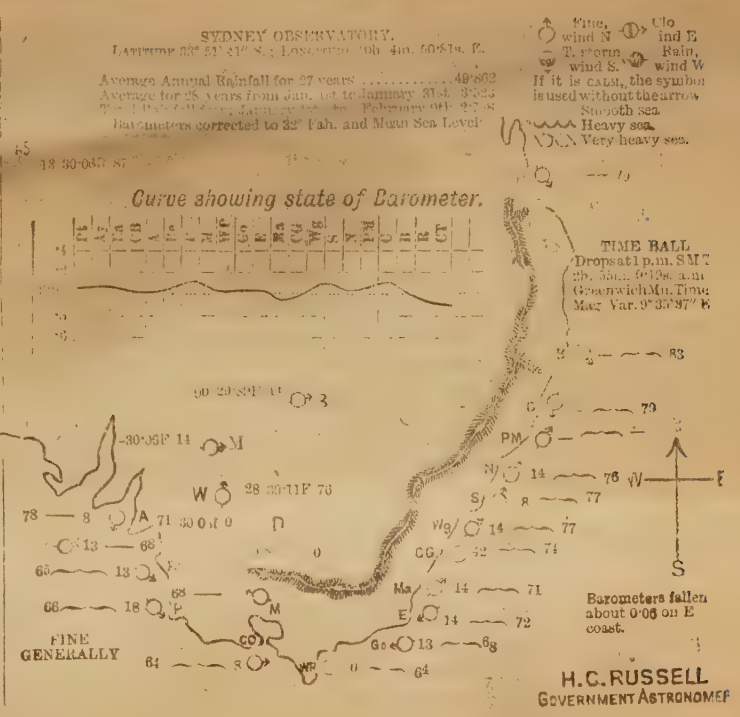
ASTRONOMICAL MEMORANDA FOR FEBRUARY 9.

Sun rises at 5.31, sets at 6.58; Moon rises at 10. a.m., sets at 9.36 p.m.; Mercury, 4.35 a.m., 6.32 p.m.; Venus, 6.58 a.m., 7.18 p.m.; Mars, 8.40 p.m., 8.10 a.m.; Jupiter, 8.59 p.m., 9.9 a.m.; Saturn, 3.54 p.m., 1.49 a.m. New moon 4th, full moon 19th.

High water at Fort Denison, February 9: 11.16 a.m.,

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 9, 1886.

Stations	wt	Mx	Mn	R'fn
Albury	b	90	—	0
Armidale	b	85	62	0
Balranald	b	106	46	0
Bathurst	b	91	58	0
Bend'm'r	b	91	60	0
Bodalla	b	82	—	0
Bourke	b	105	61	0
C'md'n H.	b	84	68	0
C. St. Geo.	b	78	64	0
Carcoar	b	78	59	0
Casino	b	89	62	0
Cassilis	b	87	64	0
Clarence	b	91	68	0
C'nd'b'lin	b	90	54	0
Cooma	b	93	40	0
Coonab'n	b	99	58	0
C'nam ble	b	—	—	0
Cowra	b	98	59	0
Deniliq'n	b	94	48	0
Dubbo	h	102	69	0
Eden	b	77	52	0
Euston	b	101	50	0
Forbes	b	89	62	0
Gl'n Inn's	b	95	63	0
Goulburn	b	100	57	0
Grafton	c	91	68	0
Ea-				
Gulgong	b	94	66	0
Gunned'h	b	101	63	0
Hay	b	91	61	0
Hill End	b	—	—	0
Inverell	b	92	66	0
Kiandra	b	73	49	0
Lismore	b	87	70	0
Maitland	b	93	50	0
Marsdens	b	95	69	0
Menindie	b	89	68	0
Molong	b	85	62	0
Moree	b	100	72	0
Moruya	b	78	64	0
Moss Vale	b	78	58	0
Mt. Hope	b	76	66	0
M. Vict'ria	b	83	54	0
Mudgee	b	99	66	0
M'rr'm'bh	b	93	66	0
M'rr'ndi	b	89	61	0
Mus'lbr'k	b	94	61	0
Narrabri	b	105	70	0
Newcastle	b	81	69	0
Nowra	—	—	—	—
Orange	b	81	57	0
Picton	b	82	56	0
P. M'q'rie	b	—	—	0
P. St'ph'n	b	86	66	0
Q'nbeyan	b	80	63	0
Quirindi	b	103	74	0
Singleton	b	89	68	0
Sydney	b	79	67	0
Tamw'rth	b	95	69	0
Taralga	b	93	44	0
Taree	b	88	45	0
T'nt'rfield	c	81	61	0
Wagga	b	96	57	0
Walcha	b	79	41	0
Walgett	b	102	68	0
W'ntw'rth	d	96	60	0
Wilcannia	d	—	—	0
W'll'ng'ng	b	85	66	0
Young	b	101	62	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.. b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; Melbourne, W.P. Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay, Wg, Wollongong, S, Sydney, N, Newcastle; P M, Port Macquarie; C, Clarence River; B Brisbane, R, Rockhampton; Ct Cooktown. Inland the state of barometer is given. Figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them and southerly following.

Western Australia.—Weather fine, with light southerly winds, fallen barometers, and smooth sea. No rain reported.

South Australia.—Generally fine and warm with light S.W. and S.E. winds; cloudy north of Daly Waters. Rainfall: at Yam Creek, 2·30.

Victoria.—Generally fine, with light variable winds and calms, slightly risen barometer, and smooth sea; hazy at Melbourne; misty at Cape Otway. No rain reported. Echuca, barometer 29·95, S.W. wind, fine weather; Omeo, barometer 30·09, S.W., calm, fine weather.

Tasmania.—At Low Heads, barometer 29·95, thermometer 62°; wind light westerly, and smooth sea.

New Zealand.—Russell, barometer 30·0, N.E., heavy gloomy sky; Wellington, barometer 29·9, N.W., showery; Bluff, barometer 29·9, W., fine.

New South Wales.—Generally fine and calm inland; fine, with light N.E. winds on coast, fallen barometers and smooth sea. Stations not in Map: Morangarell, maximum 89°, minimum 66°, N.E. wind, and fine and clear; Bateman's Bay, thermometer 70°, calm and fine, with smooth sea. For particulars see map.

Queensland.—Weather fine, with S.E. winds, steady barometers, and smooth sea; hot wind blowing at Townsville. Rainfall: Townsville 1·71, Rockhampton 0·28, Cooktown 0·99.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.S.W., 26, fine but cloudy, temperature 71°; Cape Otway, E., 8, cloudy and misty, moderate sea, temperature 68°; Portland, E.S.E., 23, fine, smooth sea, temperature 66°; Wilson's Promontory, N.E., 8, fine but cloudy, smooth sea; temperature 76°.

New South Wales.—Cape St. George, N.N.E., 72, fine, smooth sea, temperature 74°; Deniliquin, calm, fine, temperature 86°; Dubbo, W., fine, temperature 86°; Goulburn, W., fine, temperature 78°; Menindie, calm, fine, temperature 86°; Moruya, N.E., 28, fine, smooth sea, temperature 76°; Newcastle, N.E., 28, fine, smooth sea, temperature 76°; Port Macquarie, N.N.E., 28, fine, smooth sea, temperature 80°; Sydney, N.E., 24, fine, smooth sea, temperature 76°; Wentworth, N., 14, fine, temperature 80°; Bateman's Bay, N.E., 14, fine, temperature 77°; Walgett, calm, threatening, sultry, temperature 100°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 2 inches above summer level; at Hay, 7 inches above summer level; at Balranald, 1 foot 6 inches above summer level. Murray: At Albury, 1 foot 10 inches above summer level; at Euston, 1 foot 6 inches above summer level. Darling: At Wentworth, 2 feet 1 inch above summer level; at Pooncarie and Menindie, low; at Wilcannia, 3 feet above summer level; at Bourke, summer level.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 10.

Sun rises at 5.32, sets at 6.57; Moon rises at 10.57 a.m., sets at 10.11 p.m.; Mercury, 4.39 a.m., 6.33 p.m.; Venus, 6.52 a.m., 7.12 p.m.; Mars, 8.36 p.m., 8.5 a.m.; Jupiter, 8.55 p.m., 9.3 a.m.; Saturn, 3.50 p.m., 1.44 a.m. New moon 4th, full moon 19th.

High water at Fort Denison, February 10: 11.53 a.m., — p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 10, 1886.

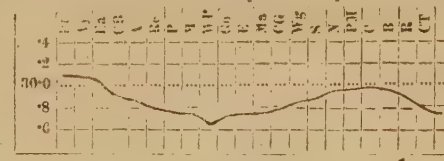
Stations	wt.	Mx.	Mn.	R'fall
Albury	b	96	—	0
Armidale	b	87	60	0
Balranald	b	104	50	0
Bathurst	b	95	61	0
Bend'm'r	b	92	60	0
Bodalla	b	86	—	0
Bourke	b	113	71	0
C'md'n H.	b	80	71	0
C. St. Geo.	b	81	69	0
Carcoar	b	85	63	0
Casino	—	—	—	—
Casilis	b	90	70	0
Clarence	c	92	73	0
C'nd'b'lin	b	96	56	0
Cooma	b	95	38	0
Coonab'n	b	100	58	0
C'nam ble	b	—	—	0
Cowra	b	100	71	0
Deniliq'n	b	101	52	0
Dubbo	—	—	—	—
Eden	—	—	—	—
Euston	b	107	56	0
Forbes	b	106	69	0
Gl'n Inn's	b	86	61	0·45
Goulburn	b	100	57	0
Grafton	c	94	70	0
18–70 Ea.				
Gulgong	—	—	—	—
Gunned'h	b	103	75	0
Hay	b	98	61	0
Hill End	b	—	—	0
Inverell	b	92	65	0
Kiandra	b	78	41	0
Lismore	c	90	66	0
Maitland	b	98	71	0
Marsdens	b	100	72	0
Menindie	b	95	69	0
Molong	b	96	64	0
Moree	b	98	70	0
Moruya	h	82	63	0
Moss Vale	—	—	—	—
Mt. Hope	b	93	79	0
M. Vict'ria	b	87	59	0
Mudgee	b	101	63	0
M'rr'm'bh	b	98	65	0
M'rr'ndi	b	89	62	0
Mus'br'k	b	101	61	0
Narrabri	h	99	64	0
Newcastle	b	82	63	0
Nowra	—	—	—	—
Orange	b	87	58	0
Picton	h	84	62	0
P. M'q'rie	b	90	63	0
P. St'ph'n	—	—	—	—
Q'nbeyan	b	88	64	0
Quirindi	b	101	71	0
Singleton	b	90	70	0
Sydney	b	79	70	0
Tamw'rth	b	97	70	0
Taralga	b	81	54	0
Taree	b	89	70	0
T'nt'rfield	—	—	—	—
Wagga	b	100	60	0
Walcha	b	84	51	0
Walgett	b	105	76	0
W'ntw'rth	b	102	66	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	84	66	0
Young	b	103	63	0

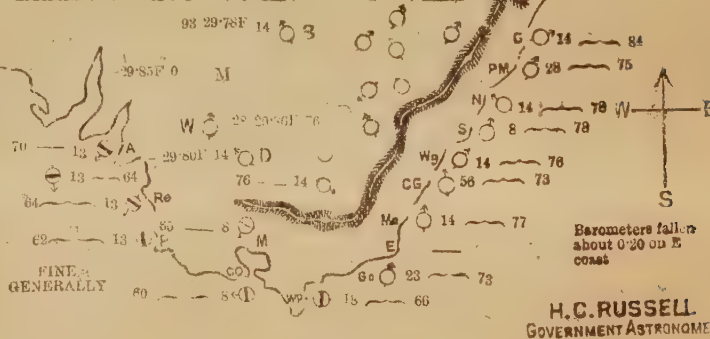
SYDNEY OBSERVATORY.

Latitude 33° 51′ 41″ S.: Longitude 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·882
Average for 25 years from Jan. 1st to January 31st 3·523
Total Rainfall from January 1st to February 10th 2·758
Barometers corrected to 32° Fah. and Mean Sea Level

Fine, wind N — Cloudy, wind E
T. storm, wind S. — Rain, wind W
If it is CALM, the symbol is used without the arrow
Smooth sea
Heavy sea.
Very heavy sea.





H. C. RUSSELL.
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Mx. gives the maximum temperature for previous 24 hours. Mn. the corresponding minimum temperature. R'fall the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given at Bourke, Wentworth, Menindie, Albury, Deniliquin, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning usually Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with southerly winds, steady barometers, and smooth sea. Cloudy and threatening at Carnarvon—no rain reported.

South Australia.—Generally cloudy, with heavy gloomy sky, and threatening rain on and near coast, and north of Daly Waters; S. and W. winds at from 13 to 23 miles per hour; winds variable north of Port Augusta; barometers fallen about 0·15; sea smooth. Rainfall: Southport, 2·16; Port Darwin, 0·71; and Daly Waters, 0·19.

Victoria.—Generally cloudy, with light westerly winds; barometers fallen about 0·30 on coast; sea smooth; dense fog at Melbourne; misty at Cape Otway; squally and hazy at Wilson's Promontory. Echuca, barometer 29·66; thermometer 89°; light N.W. wind, and fine. Omeo, barometer 29·78; thermometer 72°; light S.W. wind, fine weather.

Tasmania.—At Low Heads, barometer 29·67, fallen 0·28; thermometer 64°; with N.E. wind and cloudy weather.

New Zealand.—Russell, barometer 29·9, S.W.; Wellington, barometer 29·8, S.W.; Bluff, barometer 29·9, S.W.; weather fine generally. Rainfall at Wellington yesterday, 0·49.

New South Wales.—Weather fine generally, with light N.E. winds on coast, and calm in country; fallen barometers and smooth sea. Stations not in Map: Morangarell, maximum 100°, minimum 65°. N.E. wind, and fine weather; Bateman's Bay, N.W. wind, fine weather, and smooth sea. For particulars see map.

Queensland.—Generally fine, with S.E. winds and calms; barometers fallen about one-tenth; sea smooth. Rainfall: Cooktown 0·49; Townsville 0·35.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 13, cloudy and threatening, temperature 60°; Cape Otway, W., 13, cloudy and misty, rough sea, temperature 61°; Portland, W.N.W., 34, fine, but squally, smooth sea, temperature 65°; Wilson's Promontory, W., 37, cloudy, squally, threatening, smooth sea, temperature 64°.

New South Wales.—Cape St. George, N.N.E., 42, fine, moderate sea, temperature 77°; Clarence River, N.E., 14, fine, smooth sea, temperature 80°; Deniliquin, N.W., fine, temperature 96°; Dubbo, N.W., 28, fine, temperature 88°; Eden, N.E., 14, fine, smooth sea, temperature 79°; Goulburn, N.W., cloudy, temperature 79.; Menindie, W., cloudy, temperature 89°; Moruya, N.E., 30, fine, moderate sea, temperature 75°; Newcastle, N.E., 28, fine, smooth sea, temperature 77°; Port Macquarie, N.N.E., 42, fine, smooth sea, temperature 77°; Sydney, N.N.E., 25, overcast, threatening thunderstorm, smooth sea, temperature 75°; Wentworth, N.W., cloudy, temperature 84°; Bateman's Bay, E., 28, fine, temperature 80°; Walgett, N., fine and hot, temperature 101°. At 4.15 p.m. a thunderstorm passed over the city, and a little rain fell; at 7.30 p.m. another storm, and more rain up to 9 p.m.; 0.54 rain fell.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 2 inches above summer level; at Hay, 5 inches above summer level; at Balranald, 1 foot 6 inches above summer level. Murray: At Albury, 1 foot 10 inches above summer level; at Euston, 1 foot 4 inches above summer level. Darling: At Wentworth, 2 feet above summer level; at Pooncarie, low; at Wilcannia, 3 feet 3 inches above summer level; at Bourke, summer level.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 11.

Sun rises at 5.33, sets at 6.56; Moon rises at 11.53 a.m., sets at 10.48 p.m.; Mercury, 4.44 a.m., 6.35 p.m.; Venus, 6.47 a.m., 7.6 p.m.; Mars, 8.31 p.m., 8 a.m.; Jupiter, 8.51 p.m., 9 a.m.; Saturn, 3.46 p.m., 1.40 a.m. New moon 4th, full moon 19th.

High water at Fort Denison, February 11: 12.12 a.m., 12.33 p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 11, 1886.

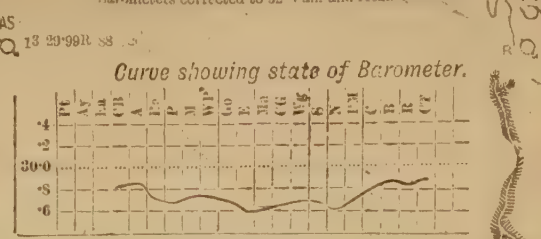
Stations	wt	Mx	mn	R	in
Albury	b	102	—	0	
Armidale	c	90	65	0·11	
Balranald	b	111	44	0	
Bathurst	b	95	64	0·15	
Bend'm'r	u	93	68	0·66	
Bodalla ..	c	90	—	0	
Bourke ..	b	114	73	0·05	
C'md'n H.	c	81	70	0	
C. St. Geo.	h	93	66	0	
Carcoar ..	b	88	59	0	
Casino ..	b	92	57	0	
Cassilis ..	b	93	74	0	
Clarence ..	b	92	67	0	
C'nd'b'lin	b	99	56	0·07	
Cooma ..	b	98	37	0	
Coonab'n	h	98	65	0·05	
C'nam ble	b	—	—	0	
Cowra ..	b	98	65	0·19	
Deniliq'n	b	106	48	0	
Dubbo ..	b	104	63	0·07	
Eden	c	80	62	0	
Euston ..	b	107	49	0	
Forbes ..	b	100	69	0	
Gl'n Inn's	u	90	59	0	
Goulburn	b	96	66	0·05	
Grafton ..	b	96	65	0	
Ea·					
Gulgong	b	90	70	0·16	
Gunned'h	c	103	76	0	
Hay	b	105	51	0	
Hill End	c	—	—	0·16	
Inverell ..	u	91	68	0	
Kiandra	c	82	51	0	
Lismore	b	90	63	0	
Maitland	b	102	77	0·05	
Marsdens	b	102	75	0	
Menindie	b	101	64	0	
Molong ..	c	99	66	0·22	
Moree ..	c	96	71	0	
Moruya ..	c	81	56	0	
Moss Vale	b	88	65	0·21	
Mt. Hope	b	99	79	0·06	
M. Vict'ria	b	91	61	0·22	
Mudgee ..	b	99	62	0	
M'rr'm'bh	c	105	73	0	
M'rr'n'ndi	b	91	63	0·15	
Mus'lbr'k	h	102	69	0·09	
Narrabri	c	98	71	0·02	
Newcastle	c	83	69	0·08	
Nowra ..	–	—	—	—	
Orange ..	b	90	62	0·14	
Picton ..	b	92	68	0·63	
P. M'q'rie	c	79	65	0	
P. St'ph'n	b	86	67	0·22	
Q'nbeyan	b	85	71	0	
Quirindi	u	104	78	0	
Singleton	b	100	75	0	
Sydney ..	b	81	69	0·55	
Tamw'rth	b	97	77	0	
Taralga ..	b	101	68	0	
Tarce	c	91	72	0	
T'nt'rfield	b	87	56	0	
Wagga ..	b	96	60	0	
Walcha ..	c	83	61	0	
Walgett ..	b	105	75	0	
W'ntw'rth	c	105	54	0	
Wilcannia	b	—	—	0	
W'll'ng'ng	b	83	69	0	
Young ..	b	103	62	0	

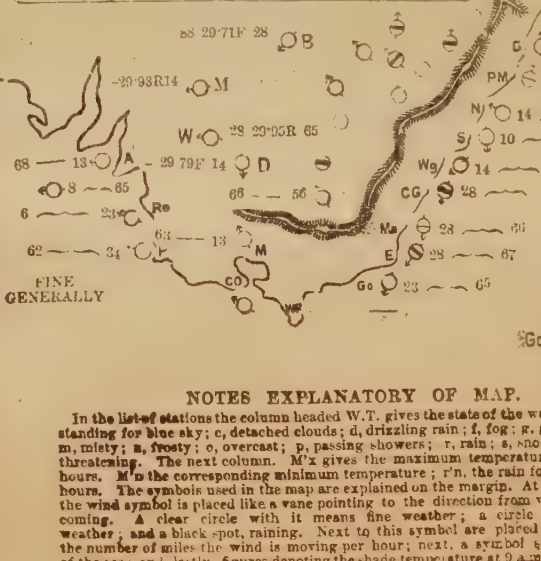
SYDNEY OBSERVATORY.

Latitude 33° 51′ 41″ S.; Longitude 10h. 4m. 50·81s. E.

Average Annual Rainfall for 37 years ... 49·87
Average for 25 years from Jan. 1st to January 31st ... 3·63
Total Rainfall from January 1st to February 11th 3·203
Barometers corrected to 32° Fah. and Mean Sea-Level

Fine, wind N. — Cloud E.
T. storm, wind S. — Rain, wind W.
If it is calm, the symbol is used without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.





H. C. RUSSELL
Government Astronomer.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla, CB, Cape Borda; A, Adelaide, Re, Robe; P, Portland; M, Melbourne, W.E. Wilson's Promontory; Go, Gabo, E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given by figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—Esperance Bay, barometer 30.11, temperature 64°, wind south, fine but threatening weather and smooth sea; Perth, barometer 29.97, S.E. wind and fine weather; Albany, barometer 29·99. S. wind and fine weather.

South Australia—Generally cloudy and cool, fine between Port Augusta and Peake, west and south winds at from 23 to 34 miles per hour. Rainfall: At Port Darwin, 0·36; Daly Waters, 0·23; Roba, 0·02. Barometer fallen slightly on coast; risen inland.

Victoria.—Fine generally, with fresh north west winds and smooth sea generally, barometer fallen one-tenth on coast, squally at Portland, misty and rough sea at Cape Otway. Rainfall: Melbourne, 0·10; Portland, 0·13; Echuca, barometer 29·77, thermometer 68°, wind W., fine weather; Omeo, barometer 29·62, thermometer 71°, wind N., fine weather.

Tasmania.—At Low Heads, barometer 29·51, fallen 0·16; thermometer 61°; fresh W.N.W. wind and fine weather.

New Zealand.—Russell, barometer 30·0, S.W. wind, weather fine; Wellington, barometer 29·9, N.W. wind, weather fine; Cluff, barometer 29·7, W. wind, weather gloomy.

New South Wales.—Weather fine generally, with variable winds and calms, fallen barometers and smooth sea; light rains from seaward fell yesterday along the coast districts; heaviest at Camden. Stations not in map: Morangarell, maximum 104°, minimum 79, calm and fine; Bateman's Bay, S.W. wind, cloudy and threatening rain, thermometer at 9 a.m. 71°, and smooth sea. For particulars see map.

Queensland.—Generally fine, with south-east winds and calms; barometers fallen about south, risen north. Rainfall: Cooktown, 0·98; Townsville, 0·66.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, W.N.W., 18, fine, temperature 77°; Cape Otway, W.N.W., 18, cloudy, misty, high sea, temperature 67°; Portland, W., fine, smooth sea, temperature 67°; Wilson's Promontory, W., 48, squally, rough sea, temperature 66°.

New South Wales.—Cape St. George, S., 42, fine, smooth sea, temperature 73°; Deniliquin, N.W., fine, temperature 80°; Dubbo, W., 14, fine and hazy, temperature 88°; Goulburn, W., fine, temperature 82.; Menindie, S.W., fine and warm, temperature 80°; Moruya, E.N.E., 28, fine, and smooth sea, temperature 75°; Newcastle, W., 14, fine, smooth sea, temperature 98°; Port Macquarie, N.N.E., 42, fine, smooth sea, temperature 76°; Wentworth, W., fine and warm, temperature 73°; Bateman's Bay, E., 28, fine, temperature 70°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 1 inches above summer level; at Hay, below summer level; at Balranald, 5 inches above summer level. Murray: At Albury, 1 foot 6 inches above summer level; at Euston, 1 foot 3 inches above summer level. Darling: At Wentworth, 1 foot 11 inches above summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, 3 feet above summer level; Bourke, summer level.

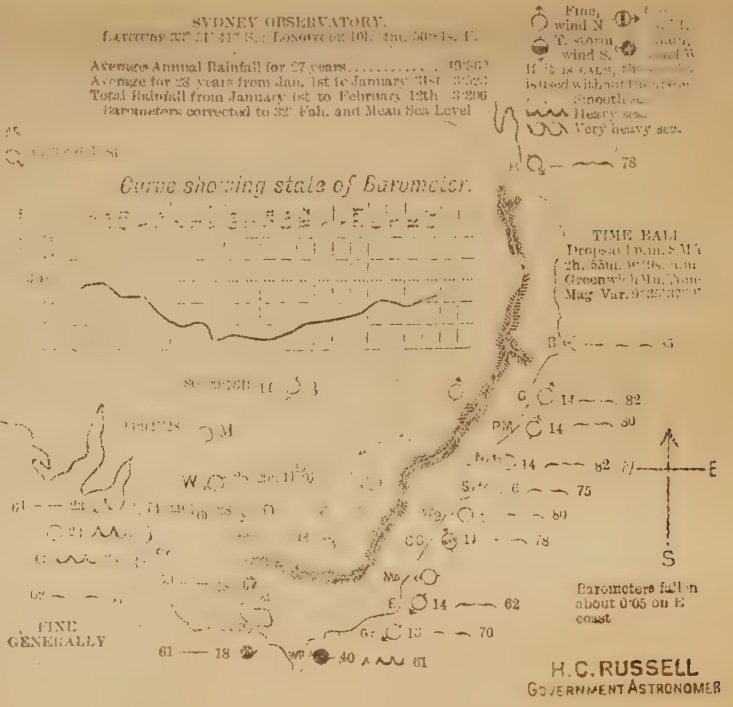
ASTRONOMICAL MEMORANDA FOR FEBRUARY 12.

Sun rises at 5.34, sets at 6.55; Moon rises at 12.53 p.m., sets at 11.31 p.m.; Mercury, 4.48 a.m., 6.36 p.m.; Venus, 6.41 a.m., 7 p.m.; Mars, 8.27 p.m., 7.58 a.m.; Jupiter, 8.47 p.m., 8.56 a.m.; Saturn, 3.42 p.m., 1.36 a.m. New moon 4th, full moon 19th.

High water at Fort Denison, February 12: 12.54 a.m., 1.22 p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 12, 1886.

Stations	W.T.	M'x	M'n	R'in
Albury	b	83	—	0
Armidale	b	86	66	0
Balranald	b	95	47	0
Bathurst	b	91	51	0
Bend'm'r	–	—	—	—
Bodalla	c	88	—	0
Bourke	b	107	56	0
C'md'n H.	b	88	70	0
C. St. Geo.	c	79	58	0
Carcoar	b	84	58	0
Casino	b	93	70	0
Cassilis	b	93	69	0
Clarence	b	91	67	0
C'nd'b'lin	b	88	51	0
Cooma	o	96	57	0
Coonab'n	b	98	54	0
C'namble	b	—	—	0
Cowra	b	101	64	0
Deniliq'n	b	87	52	0
Dubbo	–	—	—	—
Eden	o	74	58	0
Euston	b	88	52	0
Forbes	b	90	57	0
Gl'n Inn's	b	97	61	0
Goulburn	b	90	52	0
Grafton	b	102	71	0
Ha-				
Gulgong	b	91	64	0
Gunned'h	b	—	—	—
Hay	–	95	59	0
Hill End	b	—	—	0
Inverell	b	91	67	0
Kiandra	b	78	52	0
Lismore	b	90	71	0
Maitland	b	102	67	0
Marsdens	b	91	68	0
Menindie	b	85	67	0
Molong	b	98	58	0
Moree	b	102	74	0
Moruya	c	78	59	0
Moss Vale	b	88	63	0
Mt. Hope	b	92	74	0
M. Vict'ria	b	89	58	0
Mudgee	b	95	53	0
M'rr'm'bh	b	91	62	0
M'rr'n'dl	b	93	64	0
Mus'b'r'k	b	104	63	0
Narrabri	h	103	60	0
Newcastle	b	100	69	0
Nowra	–	—	—	—
Orange	b	85	52	0
Picton	b	92	52	0
P. M'q'rie	h	82	64	0
P. St'ph'n	b	87	66	0
Q'nbeyan	b	88	63	0
Quirindi	b	104	71	0
Singleton	b	100	69	0
Sydney	b	81	66	0
Tamw'rth	b	98	60	0
Taralga	b	97	59	0
Taree	b	99	69	0
T'nt'rfield	b	90	59	0
Wagga	b	90	53	0
Walcha	b	83	55	0
Walgett	–	—	—	—
W'ntw'rth	b	86	58	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	83	63	0
Young	b	98	54	0



NOTES EXPLANATORY OF THE MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.. b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'in, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Eu, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W.P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury Deniliquin, Wentworth, Menindie, Bourke, and Alice Spring. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light variable winds and calms, steady barometers, and smooth sea; misty rain at Esperance Bay.

South Australia.—Generally cloudy and gloomy inland west of Port Augusta, and light rain in places; N.W. and S.W. winds, at from 23 to 34 miles per hour. Thunderstorm and thunder showers at Daly Waters; rough sea off Cape Borda and Robe; raining at M'Donnell Bay. Barometers risen slightly. Rainfall: Daly Waters, 1·96; Port Darwin, 0·18; Cape Borda, 0·07; M'Donnell Bay, 0·06.

Victoria.—Generally raining; cloudy and squally on coast, with rough sea; fallen barometers, and strong westerly winds. Fine inland; fierce squalls at Wilson's Promontory; foggy at Cape Otway. Rainfall: Portland, 0·32.

Tasmania.—At Low Heads, barometer low, 29·38, fallen 0·13; temperature at 9 a.m., 59°; west wind, and cloudy weather.

New Zealand.—Russell, barometer 30·0, wind calm; Wellington, barometer 29·9, N.W. wind; Bluff, barometer 2·96, N. wind; weather generally fine.

New South Wales.—Generally fine, with westerly winds and calm, fallen barometers and smooth sea. Stations not in map: Morangarell, maximum 89°, minimum 59°, fine and clear; Bateman's Bay, S. wind, fine weather, smooth sea, thermometer 63°. For particulars see map.

Queensland.—Fine generally, with variable winds, steady barometers, and moderately smooth sea. Rainfall: Cooktown, 0·70.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, W., 23, cloudy and squally, temperature 71°; Cape Otway, W., 18, misty and squally, very high sea, temperature 62°; Lake Entrance, W.N.W., 34, threatening, squally, rough sea, temperature 71°; Wilson's Promontory, W., 40, fierce squalls, raining, rough sea, temperature 56°.

New South Wales.—Clarence River, N.E., 14, fine, smooth sea, temperature 77°; Deniliquin, S.W., fine, temperature 76°; Dubbo, S.W., 14, fine, temperature 85°; Eden, E., 14, fine, smooth sea, temperature 71°; Goulburn, W., 28, fine, temperature 81°; Moruya, S.E., 28, fine, moderate sea, temperature 82°; Newcastle, W., 28, fine, smooth sea, temperature 99°; Port Macquarie, N.N.E., 42, fine and hazy, smooth sea, temperature 82°; Sydney, N.W., 20, hot wind blowing, smooth sea, temperature 95°; Bateman's Bay, W., 28, fine, temperature 85°; Walgett, S., fine, temperature 96°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 10 inches above summer level; at Hay, below summer level; at Balranald, 1 foot above summer level. Murray: At Albury, 1 foot 2 inches above summer level; at Euston, 1 foot 2 inches above summer level. Darling: At Wentworth, 1 foot 10 inches above summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, 2 feet 11 inches above summer level; Bourke, low.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 13.

Sun rises at 5.35, sets at 6.54; Moon rises at 1.54 p.m., sets at —; Mercury, 4.52 a.m., 6.38 p.m.; Venus, 6.35 a.m., 6.54 p.m.; Mars, 8.23 p.m., 7.50 a.m.; Jupiter, 8.43 p.m., 8.52 a.m.; Saturn, 3.38 p.m., 1.32 a.m. New moon 4th, full moon 19th.

High water at Fort Denison, February 13: 1.49 a.m., 2.26 p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 13, 1886.

Stations	W.T.	M'x	m'n	R'fall
Albury	b	84	54	0
Armidale	b	93	56	0
Balranald	b	93	43	0
Bathurst	b	90	55	0
Bend'm'r	b	96	51	0
Bodalla ..	–	—	—	—
Bourke ..	b	105	66	0
C'md'n H.	b	80	59	0
C. St. Geo.	b	96	59	0
Carcoar ..	b	80	55	0
Casino ..	b	105	72	0
Cassilis ..	b	93	64	0
Clarence	b	87	70	0
C'nd'b'lin	b	89	53	0
Cooma ..	o	98	49	0
Coonab'n	c	98	56	0
C'namble	b	—	—	0
Cowra ..	b	94	68	0
Denilliq'n	b	91	45	0
Dubbo ..	b	99	64	0
Eden	c	76	56	0
Euston ..	b	88	49	0
Forbes ..	b	94	64	0
Gl'n Inn's	b	101	60	0
Goulburn	b	89	52	0
Grafton ..	b	109	72	0
Ga.				
Gulgong	b	89	69	0
Gunned'h	b	107	69	0
Hay	b	94	53	0
Hill End	–	—	—	—
Inverell ..	b	95	62	0
Kiandra	c	71	42	0
Lismore	b	101	72	0
Maitland	b	103	71	0
Marsdens	b	92	69	0
Menindie	b	87	62	0
Molong ..	b	96	59	0
Moree ..	b	107	69	0
Moruya ..	g	95	64	0
Moss Vale	b	87	58	0
Mt. Hope	–	—	—	—
M. Vict'ria	c	88	56	0
Mudgee ..	b	96	60	0
M'rr'm'bh	b	90	64	0
M'rr'ndi	b	91	63	0
Mus'br'k	b	104	60	0
Narrabri	h	103	62	0
Newcastle	b	101	69	0
Nowra ..	c	98	61	0
Orange ..	b	83	57	0
Picton ..	c	95	60	0
P. M'q'rie	b	85	62	0
P. St'ph'n	b	92	67	0
Q'nbeyan	b	85	60	0
Quirindi	b	108	66	0
Singleton	b	100	74	0
SYDNEY ..	b	97	68	0
Tamw'rth	b	101	56	0
Taralga ..	–	—	—	—
Taree	c	99	68	0
T'nt'rfield	b	96	61	0
Wagga ..	h	90	54	0
Walcha ..	b	87	51	0
Walgett ..	h	102	69	0
W'ntw'rth	b	88	53	0
Wilcannia	–	—	—	—
W'll'ng'ng	c	98	65	0
Young ..	b	95	58	0

SYDNEY OBSERVATORY
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 28 years from Jan. 1st to January 31st 3·523
Total Rainfall from January 1st to February 13th, 3·206
Barometers corrected to 32° Fah. and Mean Sea Level

Fine, wind N. Cloudy and E.
E. storm, wind S. Rain, wind W.
If it is CALM, the symbol is used without the arrow.
Smooth sea
Heavy sea.
Very heavy sea.

Curve showing state of Barometer.

TIME BALL.
Drops at 1 p.m. S.M.T.
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35′ 37″ E.

Barometers risen about 0·30 on E. coast

FINE GENERALLY

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; p, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar. cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Eu, Eucla, CB Cape Borda, A, Adelaide, Re, Robe; P, Portland; M, Melbourne, WP, Wilson's Promontory, Go, Gabo, E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney, N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Ashburton, S.W. wind and fine weather; Geraldton, S. wind and cloudy weather; Perth, SE. wind and fine weather; Esperance Bay, E. wind and fine weather. Barometers fallen slightly, sea smooth.

South Australia.—Generally fine, with light E. and S. winds, rising barometers, and smooth sea. No rain reported.

Victoria.—Generally fine, with light S.W. winds; barometers on coast risen about 0·56; sea generally smooth, but rough at Cape Otway; misty at Cape Otway. Rainfall: Portland, 0·03; Cape Otway, 0·18; Wilson's Promontory, 0·28; Echuca, barometer 30·06, risen 0·26; temperature 62°, wind S.W., and fine weather.

Tasmania.—Barometer 30·03, risen 0·65; temperature 57°, fresh W. wind and fine weather at Low Heads.

New Zealand.—Russell, barometer 30·32, calm wind, fine weather; Wellington, barometer 30·0, N.W. wind, fine weather; Bluff, barometer 29·8, wind W., misty rain.

New South Wales.—Weather fine generally, with strong southerly wind on coast, and in S.W. part of country. Barometer risen about 0·30 generally. Sea generally smooth, but rough at Gabo Island. No rain. Stations not in map.—Bateman's Bay, S.W. wind, fine but cloudy; temperature, 9 a.m., 65°. Morangarell' maximum 81°, minimum 64°, S.W. wind, fine weather. For particulars see map.

Queensland.—Fine generally, with variable winds, slightly risen barometers, and smooth sea. Rainfall: Cooktown, 0·35.

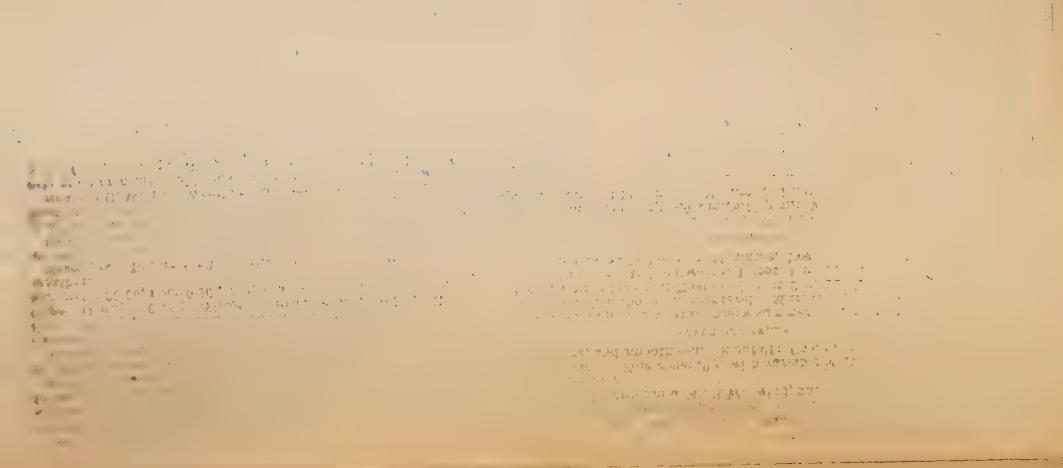
STATE OF RIVERS.

Murrumbidgee: At Hay, below summer level; at Balranald, 1 foot 10 inches above summer level. Murray: At Albury 1 foot above summer level; at Euston, 1 foot 2 inches above summer level. Darling: At Wentworth, 1 foot 9 inches above summer level; at Pooncarie, low; at Menindie, low.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 15.

Sun rises at 5.37, sets at 6.52; Moon rises at 3.54 p.m., sets at 1.11 a.m.; Mercury, 5.0 a.m., 6.40 p.m.; Venus, 6.21 a.m., 6.40 p.m.; Mars, 8.13 p.m., 7.41 a.m.; Jupiter, 8.35 p.m., 8.18 a.m.; Saturn, 3.29 p.m., 1.23 a.m. New moon 4th, full moon 19th.

High water at Fort Denison, : 4.28 a.m., 5.9 p.m.



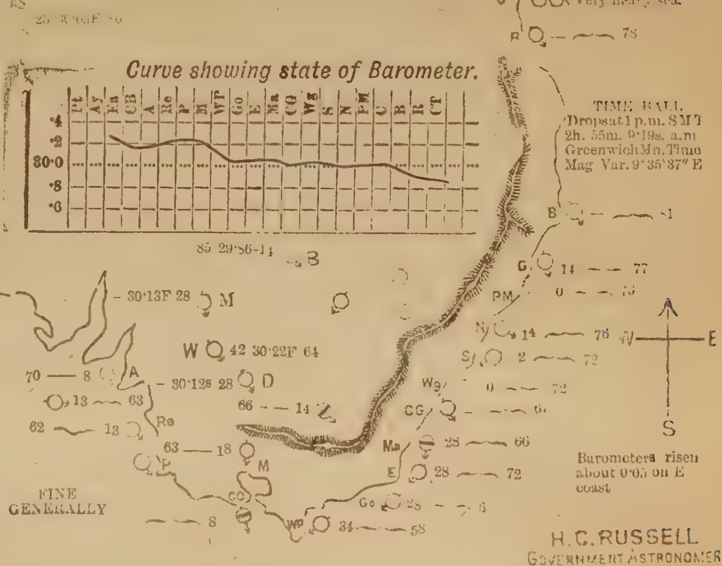
Stations	w	t		rain
Albury	c	99	73	0
Armidale	b	91	53	0
Balranald	b	98	42	0
Bathurst	b	89	50	0
Bend'm'r	b	87	51	0
Bodalla	–	—	—	—
Bourke	b	107	71	0
C'md'n H.	b	81	60	0
C. St. Geo.	b	92	59	0
Carcoar	b	80	56	0
Casino	b	84	58	0
Cassilis	b	86	62	0
Clarence	b	83	66	0
C'nd'b'lin	b	89	53	0
Cooma	c	99	45	0
Coonab'n	b	92	52	0
C'nam ble	b	—	—	0
Cowra	b	96	69	0
Deniliq'n	b	98	42	0
Dubbo	b	95	62	0
Eden	b	72	59	0
Euston	b	92	52	0
Forbes	b	92	60	0
Gl'n Inn's	b	100	55	0
Goulburn	g	89	49	0
Grafton	b	97	63	0
Gulgong	b	89	62	0
Gunned'h	b	95	68	0
Hay	b	89	56	0
Hill End	b	—	—	0
Inverell	b	95	58	0
Kiandra	c	74	38	0
Lismore	c	82	68	0
Maitland	b	85	59	0
Marsdens	b	91	64	0
Menindie	b	87	65	0
Molong	b	96	55	0
Moree	b	98	66	0
Moruya	c	76	60	0
Moss Vale	u	76	54	0
Mt. Hope	b	74	64	0
M. Vict'ria	b	81	44	0
Mudgee	b	100	54	0
M'rr'm'bh	b	91	59	0
M'rr'r'ndi	b	92	63	0
Mus'br'k	b	97	58	0
Narrabri	b	70	53	0
Newcastle	b	77	63	0
Nowra	c	74	54	0
Orange	b	79	49	0
Picton	b	80	52	0
P. M'q'rie	b	79	56	0
P. St'ph'n	b	85	67	0
Q'nbeyan	–	—	—	—
Quirindi	b	100	65	0
Singleton	b	—	63	0
SYDNEY	b	76	63	0
Tamw'rth	b	88	60	0
Taralga	b	88	52	0
Taree	b	83	59	0·01
T'nt'rfield	b	92	50	0
Wagga	b	94	53	0
Walcha	b	81	53	0
Walgett	b	100	70	0
W'ntw'rth	b	87	60	0
Wilcannia	–	—	—	—
W'll'ng'ng	p	81	57	0
Young	b	95	54	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51' 41" S.; LONGITUDE 10h. 4m. 10·81s. E.

Average Annual Rainfall for .. years............ 49·802
Average for 28 years from Jan. 1st to January 31st 3·523
Total Rainfall from January 1st to February 15th 3·208
Barometers corrected to 32° Fah. and Mean Sea Level

Fine, wind N — Cloudy, wind E — T. storm, wind S. — If it is CALM, the symbol is used without the arrow — Smooth sea — Heavy sea — Very heavy sea.



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; ... m, misty; ... threatening. The next column ... gives the maximum temperature ... hours. M'n the corresponding minimum temperature ... hours. ... the wind symbols placed like arrows ... coming. ... weather; and a black spot, raining. Next to this symbol ... the number of miles the wind is moving ... of the sea; and, lastly, figures denoting the state ... curve shows the state of barometers ... Perth: Av. Albany ... M. Melbourne. WP Wilson's Promontory ... Bay; Wg. Wollongong; S. Sydney; N. Newcastle ... River. B. Brisbane. R. Rockhampton ... is given in figures at Albury, ... Springs. The barometer curve enables ... beginning with Western Australia and passing along eastwards ... ceding ... and weather following.

Western Australia.—At Esperance Bay, barometers 29·99, temperature 64°, wind N.E., fine weather, and smooth sea.

South Australia.—Generally fine; few scattered clouds on coast; winds from S.E. to E., at from 23 to 34 miles per hour; cloudy and N.W. winds north of Katherine; barometers fallen slightly; sea smooth. Rainfall—Port Darwin, 0·06.

Victoria.—Weather fine, with fresh winds from S.E., and S.W. on coast; barometers slightly risen; sea smooth; misty at Cape Otway; squally at Melbourne and Wilson's Promontory; no rain reported. Echuca, barometer 30·00, temperature 67°, wind S., weather fine; Omeo, barometer 30·12, temperature 61°, wind S.W., weather fine.

Tasmania.—At Low Heads, barometer 30·05, temperature 61°, fresh S.W. wind, and fine weather.

New Zealand.—General over the land, heavy gloomy sky. Russell, barometer 29·9, wind N.W.; Wellington, barometer 29·7, wind N.W.; Bluff, barometer 29·7, wind N.

New South Wales.—Weather generally fine, warm and hazy in places; winds fresh from S.E., and calms; barometers almost steady since last report; sea smooth. Stations not in map.—Morangarell, maximum 84°, minimum 62°, light S.E. wind, and fine weather; Bateman's Bay, temperature 9 a.m. 64°, S.E. wind, cloudy weather, and smooth sea. For particulars see map.

Queensland.—Weather fine generally, with S.E. winds, and slightly risen barometers. Strong S.E. wind, with heavy rain and rough sea at Cooktown. Yesterday rain measured 2.40. Sea also rough at Townsville.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.S.W., 18, fine, temperature 61°; Cape Otway, S., 8, fine and misty, moderate sea, temperature 79°; Portland, S.E., 23, fine, smooth sea, temperature 64°; Wilson's Promontory, W.S.W., 34, fine, squally, moderate sea, temperature 61°.

New South Wales.—Cape St. George, S.E., 28, fine, smooth sea, temperature 72°; Clarence River, E.S.E., 11, fine, smooth sea, temperature 80°; Deniliquin, calm, fine, temperature 71°; Dubbo, S.E., fine, temperature 83°; Goulburn, E., 14, fine, temperature 74°; Menindie, S.E., fine, temperature 79°; Moruya, S.E., 42, fine, smooth sea, temperature 71°; Newcastle, S.E., 14, fine, smooth sea, temperature 73°; Port Macquarie, E., 14, fine, smooth sea, temperature 81°; Sydney, S.E., 18, fine, but cloudy, smooth sea, temperature 73°; Wentworth, S., 28, fine, temperature 75°; Bateman's Bay, S.E., 42, fine, smooth sea, temperature 70°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 9 inches above summer level; at Hay, summer level; at Balranald, 1 foot 6 inches above summer level. Murray: At Albury, 1 foot above summer level; at Euston, 1 foot 4 inches above summer level. Darling: At Wentworth, 1 foot 5 inches above summer level; at Pooncarie, low; at Menindie, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 16.

Sun rises at 5.38, sets at 6.50; Moon rises at 4.50 p.m., sets at 2.10 a.m.; Mercury, 5.3 a.m., 6.41 p.m.; Venus, 6.12 a.m., ... p.m.; Mars, 8.8 p.m., 7.36 a.m.; Jupiter, 8.31 p.m., ... a.m.; Saturn, 3.25 p.m., 1.19 a.m. New moon 4th, full moon 19th.

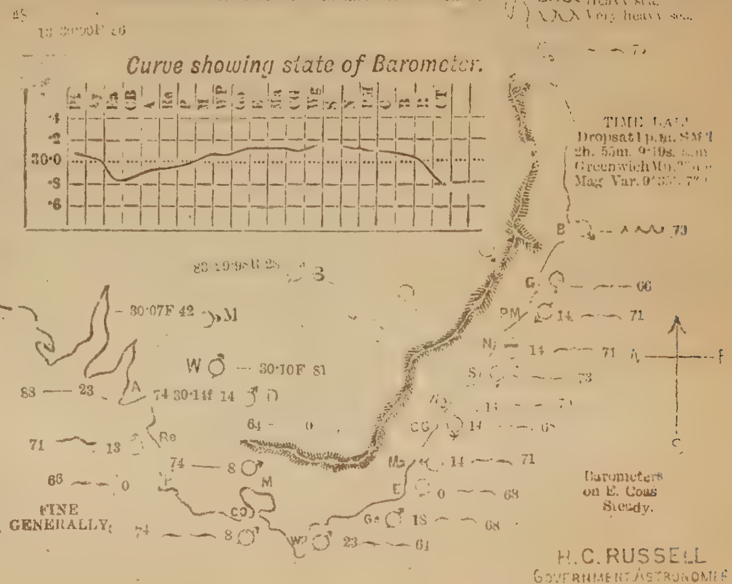
High water at Fort Denison: 5.49 a.m., 6.23 p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 17, [illegible]

Stations	wt	Max	Min	Rain
Albury	b	91	56	0
Armidale	b	70	57	0
Balranald	b	102	52	0
Bathurst	b	80	52	0
Bend'm'r	b	85	50	0
Podalla	b	78	—	0
Bourke	b	108	67	0
C'md'n H.	b	75	64	0
C. St. Geo.	b	73	59	0
Carcoar	b	76	46	0
Casino	b	80	56	0
Cassilis	b	79	60	0
Clarence	c	87	62	0
C'nd'b'lin	b	90	55	0
Cooma	c	99	40	0
Coonab'n	b	93	47	0
C'nam ble	b	—	—	0
Cowra	b	97	65	0
Deniliq'n	b	97	50	0
Dubbo	b	94	61	0
Eden	b	76	69	0
Euston	b	96	61	0
Forbes	b	96	74	0
Gl'n Inn's	b	79	51	0
Goulburn	b	84	49	0
Grafton	b	78	62	0
Gu ng	b	80	67	0
Gunned'h	b	91	64	0
Hay	b	91	65	0
Hill End	b	—	—	0
Inverell	b	84	57	0
Kiandra	b	71	35	0
Lismore	c	77	65	0·05
Maitland	g	78	60	0
Marsdens	b	91	67	0
Menindie	b	92	68	0
Molong	b	90	57	0
Moree	b	97	66	0
Moruya	b	73	56	0
Moss Vale	b	70	51	0
Mt. Hope	b	93	72	0
M. Vict'ria	b	71	46	0
Mudgee	b	90	54	0
M'rr'm'bh	b	90	61	0
M'rr'r'ndi	b	80	67	0
Mus'lbr'k	b	86	58	0
Narrabri	b	91	62	0
Newcastle	c	75	65	0
Nowra	h	77	56	0
Orange	b	78	51	0
Picton	b	75	53	0
P. M'q'rie	b	76	56	0
P. St'ph'n	g	77	56	0
Q'nbeyan	b	76	54	0
Quirindi	b	90	64	0
Singleton	c	72	61	0
SYDNEY	c	79	62	0
Tamw'rth	—	—	—	—
Taralga	b	91	59	0
Taree	b	75	59	0
T'nt'rfield	b	69	55	0
Wagga	b	86	58	0
Walcha	b	69	46	0
Walgett	b	96	69	0
W'ntw'rth	b	96	64	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	79	61	0
Young	b	95	56	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51' 41" S.; LONGITUDE [illegible]

[illegible] Average Rainfall for [illegible] year [illegible]
Average for 28 years from [illegible] 1st to January 31st [illegible]
Total Rainfall from January 1st to February 17th [illegible]
[illegible] corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP.

In the list of stations the column [illegible] hours. The symbols [illegible] the wind symbol is placed like a vane [illegible] the direction [illegible] coming. A clear circle with it means fine weather; a circle with [illegible] cloudy weather, and a black spot, raining. Next to this symbol [illegible] figures denoting the number of miles the wind is moving per hour [illegible] showing the state of the sea; and, lastly, figures denoting the [illegible] curve shows the state of barometers [illegible] Pt. Perth. Ay. Albany. [illegible] M. Melbourne. W.P. Wilson's Promontory [illegible] Bay. Wg. Wollongong [illegible] River. B. Brisbane. R. Rockhampton. [illegible] Cooktown. [illegible] the state of [illegible] is given in figures at Albury. Deniliquin. Wentworth. Menindie. Bourke. and Alice Springs. The barometer curve enables one at a glance to trace the [illegible] beginning with Western Australia and passing along eastwards, northern [illegible] ceding [illegible] and southern following.

Western Australia.—At Esperance Bay: Barometer 30·, temperature 65·, light S.W. wind, fine weather and smooth sea; rainfall, 0·04. Albany: Fresh S.E. wind. Perth: W. wind, weather generally fine, sea smooth, and barometers risen. Rainfall: Geraldton 0·86, Perth 0·62, Albany 0·60.

South Australia.—Generally fine and hot, with N.E. and N. winds, at from 23 to 34 miles per hour. Cloudy north of Alice Springs; hot wind and dusty at Adelaide; light rain at Tennant's Creek. Rainfall: Port Darwin 0·70, Tennant's Creek 0·15. Barometers fallen about 0·15 on coast; sea smooth.

Victoria.—On the coast: Generally fine, with N.E. winds; barometers fallen about 0·15; sea smooth; hazy at Cape Otway; squally and hazy at Wilson's Promontory. Inland: Calm and fine, but cloudy, barometer fallen 0·03. No rain reported.

Tasmania.—At Low Heads: Barometer 30·15, fallen 0·06; temperature at 9 a.m., 64·; light N.E. wind and fine but cloudy weather.

New Zealand.—Russell, barometer, 29·8; Wellington, 29·8; Bluff, 29·9. Wind, south generally.

New South Wales.—Generally fine and clear, with light southerly winds and steady barometers on coast; north-easterly winds and slightly fallen barometers inland; sea smooth. Extra Stations.—Morangarell, maximum 87·, minimum 63·, east wind, and fine weather; Bateman's Bay, temperature at 9 a.m., 63·, calm and fine, with smooth sea; Lawrence reports 0·25 inches rain. For further particulars see map.

Queensland.—Generally gloomy and threatening, with S.E. winds, risen barometers, and moderately smooth sea, except at Cape Moreton, where it is rough. Light rain at Townsville, threatening at Cooktown. Rainfall: Cooktown, 2·13; Townsville, 0·08; Cape Moreton, 0·06.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N.N.E., 13, fine, temperature 93·; Cape Otway, E.N.E., 8, fine and hazy, smooth sea, temperature 81·; Portland, N., 18, fine and hazy, sultry, smooth sea, temperature 84·; Wilson's Promontory, N.E., 23, fine, squally, hazy, smooth sea, temperature 73·; Lake Entrance, S.E., 22, hazy, moderate sea, temperature 72·.

New South Wales.—Cape St. George, S.S.E., 14, fine, smooth sea, temperature 76·; Deniliquin, calm, fine, temperature 88·; Dubbo, calm, fine, temperature 80·; Eden, E., 14, fine, smooth sea, temperature 70·; Goulburn, E.N.E., fine, temperature 73·; Menindie, calm, fine, temperature 85·; Newcastle, S.E., 14, fine, smooth sea, temperature 73·; Port Macquarie, S., 28, cloudy, smooth sea, temperature 79·; Sydney, E., 10, fine, smooth sea, temperature 72·; Wentworth, N., fine, temperature 97·; Bateman's Bay, S.E., 42, fine, smooth sea, temperature 70·; Walgett, S.E., fine, temperature 89·.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 9 inches above summer level; at Hay, below summer level; at Balranald, 1 foot 4 inches above summer level. Murray: at Albury, 10 inches above summer level; at Euston, 1 foot 8 inches above summer level. Darling: At Wentworth, 1 foot 2 inches above summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, 2 feet 3 inches above summer level; at Bourke, low.

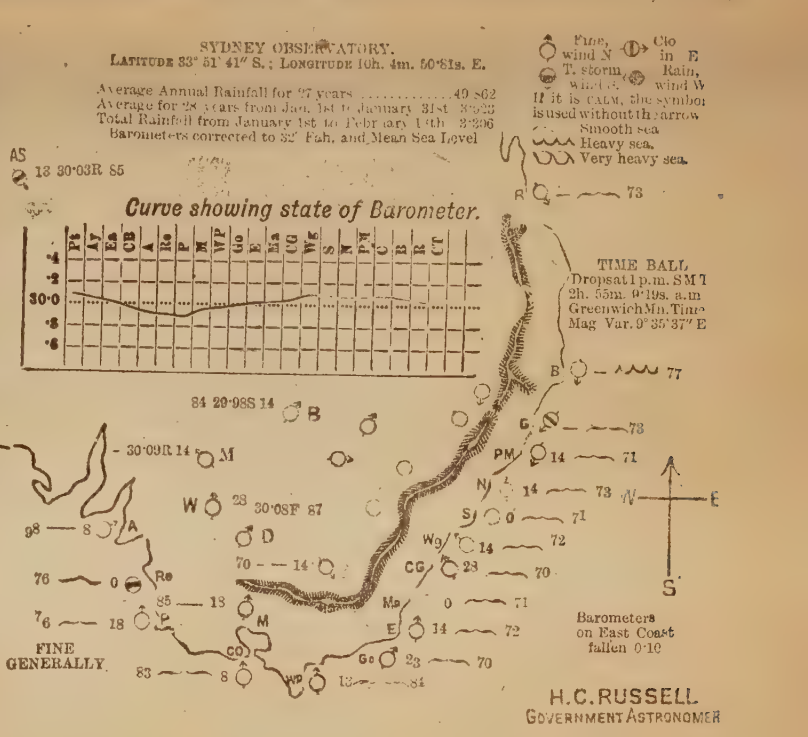
ASTRONOMICAL MEMORANDA FOR FEBRUARY 18.

Sun rises at 5.40, sets at 6.48; Moon rises at 6·32 p.m., sets at 4.22 a.m.; Mercury, 5.10 a.m., 6.42 p.m.; Venus, 5.55 a.m., 6.18 p.m.; Mars, 7.59 p.m., 7.25 a.m.; Jupiter, 8.23 p.m., 8.39 a.m.; Saturn, 3.17 p.m., 1.11 a.m. New moon 4th, full moon 19th.

High water at Fort Denison, February 18: 7.52 a.m., 8.16 p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 18, 1886.

Stations	wt	Mx	mn	a'in
Albury	b	95	59	0
Armidale	b	73	50	0
Balranald	b	119	57	0
Bathurst	b	86	52	0
Bend'm'r	b	86	50	0
Bodalla	b	80	—	0
Bourke ..	b	105	69	0
C'md'n H.	b	77	63	0
C. St. Geo.	b	77	58	0
Carcoar..	b	77	51	0
Casino ..	b	84	51	0
Cassilis ..	b	79	56	0
Clarence	c	87	62	0
C'nd'b'lin	b	91	56	0
Cooma ..	b	96	42	0
Coonab'n	b	90	51	0
C'nam ble	b	—	—	0
Cowra ..	b	99	64	0
Deniliq'n	b	102	52	0
Dubbo ..	h	95	63	0
Eden	b	72	69	0
Euston ..	b	112	70	0
Forbes ..	b	94	60	0
Gl'n Inn's	b	88	49	0
Goulburn	b	85	49	0
Grafton..	b	87	61	0
Gulgong	b	88	50	0
Gunned'h	b	91	64	0
Hay	b	99	65	0
Hill End	b	—	—	0
Inverell..	b	84	55	0
Kiandra.	b	75	35	0
Lismore	c	83	63	0
Maitland	b	80	55	0
Marsdens	b	93	68	0
Menindie	g	99	74	0
Molong ..	b	93	53	0
Moree ..	b	97	65	0
Moruya..	b	71	56	0
Moss Vale	h	75	52	0
Mt. Hope	b	96	78	0
M. Vict'ria	b	78	49	0
Mudgee..	b	94	51	0
M'rr'm'bh	–	—	—	—
M'rr'r'ndi	b	79	53	0
Mus'br'k	b	88	53	0
Narrabri	b	90	60	0
Newcastle	b	76	60	0
Nowra ..	–	—	—	—
Orange ..	b	79	51	0
Picton ..	b	80	50	0
P. M'q'rie	b	76	56	0
P. St'ph'n	b	79	55	0
Q'nbeyan	b	80	58	0
Quirindi	b	96	61	0
Singleton	b	80	61	0
Sydney ..	b	77	61	0
Tamw'rth	–	—	—	—
Taralga ..	b	88	47	0
Taree	b	80	58	0
Tnt'rfield	b	80	46	0
Wagga ..	b	86	57	0
Walcha ..	b	75	49	0
Walgett..	b	99	66	0
W'ntw'rth	b	107	72	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	80	59	0
Young ..	b	98	57	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.. b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown.—Pt. Perth; Ay. Albany; Ea. Eucla; CB. Cape Borda; A. Adelaide; Re. Robe; P. Portland; M. Melbourne; W.P. Wilson's Promontory; Gc. Gabo; E. Eden; Ma. Moruya; C G Jervis Bay; Wg. Wollongong; S. Sydney; N. Newcastle; P M. Port Macquarie; C. Clarence River; B. Brisbane; R. Rockhampton; Ct. Cooktown. Inland the state of barometer is given in figures at Albury Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with fresh S. and W. winds and smooth sea; barometers fallen in south, risen in north; no rain.

South Australia.—Generally more or less cloudy, hot, and sultry; southerly winds on coast, variable inland; barometers fallen generally; sea smooth. Very hot in Adelaide; maximum temperature, 102°. Rainfall: Port Darwin, 0·38; Tennant's Creek, 2·12.

Victoria.—Generally fine, with northerly winds, fallen barometers, and smooth sea, and hazy and sultry on coast; fine and fresh N.E. wind, barometer at 29·93, inland. Fierce hot wind at Wilson's Promontory from north.

Tasmania.—At Low Heads: Fine weather, S.E. wind, barometer fallen to 29·97; temperature at 9 a.m., 63°.

New Zealand.—Calm and cloudy in extreme north; raining, with S.W. wind, at Wellington; fine, with east wind, at extreme south; barometers risen south, fallen north.

New South Wales.—Generally fine, with fresh northerly winds, fallen barometers and smooth sea. Extra stations.—Morangarell, maximum 90°, minimum 60°, calm and fine; Bateman's Bay, temperature 9 a.m., 64°, calm and fine, smooth sea. For further particulars see map.

Queensland.—Generally fine, with S.E. winds, risen barometers, and rough sea at Townsville and Cape Moreton. Rainfall: Cooktown, 1.40.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N.N.E., 13, fine and hazy, temperature 98°; Cape Otway, W., 8, gloomy, moderate sea, temperature 85°; Portland, S.S.W., 18, sultry and hazy, smooth sea, temperature 78°.

New South Wales.—Cape St. George, N., 28, fine, smooth sea, temperature 76°; Clarence River, S., 28, fine, moderate sea, temperature 77°; Deniliquin, calm, fine and hot, temperature 76°; Dubbo, calm, fine, temperature 83°; Eden, N.E., 14, fine, smooth sea, temperature 74°; Goulburn, S., fine, temperature 80°; Menindie, calm, fine and hot, temperature 91°; Moruya, N.E., 28, fine, smooth sea, temperature 75°; Newcastle, S.E., 14, fine, smooth sea, temperature 73°; Port Macquarie, S.S.E., 42, fine, moderate sea, temperature 79°; Sydney, N.E., 18, fine, smooth sea, temperature 74°; Wentworth, W., close, temperature 98°; Bateman's Bay, N.E., 42, fine, smooth sea, temperature 76°; Walgett, S.E., fine, temperature 91°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 9 inches above summer level; at Hay, below summer level; at Balranald, 1 foot above summer level. Murray: at Albury, 9 inches above summer level; at Euston, 2 foot 3 inches above summer level. Darling: At Wentworth, 1 foot 1 inches above summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, 2 feet 2 inches above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 19.

Sun rises at 5.40, sets at 6.47; Moon rises at 7·17 p.m., sets at 5.32 a.m.; Mercury, 5.13 a.m., 6.43 p.m.; Venus, 5.46 a.m., 6.10 p.m.; Mars, 7.54 p.m., 7.20 a.m.; Jupiter, 8.19 p.m., 8.25 a.m.; Saturn, 3.13 p.m., 1.7 a.m. New moon 4th, full moon 19th.

High water at Port Denison, February 19: 8.40 a.m., 9.2 p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 19, 1886.

Stations	wt	Mx	Mn	r'fn
Albury	o	101	65	0
Armidale	b	79	55	0
Balranald	g	123	57	0
Bathurst	b	95	55	0
Bend'm'r	b	89	48	0
Bodalla ..	b	85	—	0
Bourke ..	b	108	64	0
C'md'n H.	b	78	64	0
C. St. Geo.	b	77	58	0
Carcoar..	b	82	54	0
Casino ..	b	88	56	0
Cassilis ..	b	86	63	0
Clarence	c	87	62	0
C'nd'b'lin	b	96	60	0
Cooma ..	b	98	41	0
Coonab'n	b	95	54	0
C'nam ble	b	—	—	0
Cowra ..	b	107	79	0
Deniliq'n	g	112	62	0
Dubbo ..	h	101	67	0
Eden	b	75	62	0
Euston ..	g	117	70	0
Forbes ..	b	100	74	0
Gl'n Inn's	b	92	54	0
Goulburn	b	100	48	0
Grafton..	o	94	64	0
Guigong	b	84	62	0
Gunned'h	b	95	74	0
Hay	b	109	71	0
Hill End	b	—	—	0
Inverell..	b	88	57	0
Kiandra	b	83	44	0
Lismore	c	85	64	0
Maitland	b	84	58	0
Marsdens	b	97	73	0
Menindie	b	102	78	0
Molong ..	b	98	62	0
Moree ..	b	99	68	0
Moruya..	h	80	58	0
Moss Vale	b	83	52	0
Mt. Hope	b	101	79	0
M. Vict'ria	b	85	50	0
Mudgee..	b	98	59	0
M'rr'm'bh	b	93	65	0
M'rr'r'ndi	h	86	56	0
Mus'br'k	b	93	60	0
Narrabri	h	93	62	0
Newcastle	b	78	64	0
Nowra ..	–	—	—	—
Orange ..	b	85	56	0
Picton ..	b	87	51	0
P. M'q'rie	b	77	60	0
P. St'ph'n	b	82	61	0
Q'nbeyan	b	88	60	0
Quirindi	b	102	63	0
Singleton	b	81	61	0
Sydney ..	b	77	62	0
Tamw'rth	–	—	—	—
Taralga ..	b	97	47	0
Taree	b	85	62	0
T'nt'rfield	b	85	55	0
Wagga ..	b	85	62	0
Walcha ..	b	73	42	0
Walgett..	b	97	67	0
W'ntw'rth	o	111	74	0
Wilcannia	g	—	—	0
W'll'ng'ng	b	83	63	0
Young ..	h	105	62	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years .... 49·862
Average for 27 years from Jan. 1st to January 31st 3·523
Total Rainfall from January 1st to February 19th 3·396
Barometers corrected to 32° Fah., and Mean Sea Level

Fine, wind N. Clo in E
T. storm, wind S. Rain, wind V
If it is CALM, the symbol is used without the arrow.
Smooth sea
Heavy sea.
Very heavy sea.

AS 13 30·07R 83

Curve showing state of Barometer.

Pt Ay Ea CB A Mc P M WP Go F Ma CG Ws N PM C R U

30·4 / 30·0 / ·8 / ·6

TIME BALL
Drops at 1 p.m. S.M.T.
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9°35′37″ E

88 29·98 S 28

30·07F 14 M

W S 30·07F 85

78 — 0 A 30·06 s 14 D

23 — 66 Ro

62 — 13 74 — 14

91 — 18 M

66 — 13 P

FINE GENERALLY

38 — 8 WP

CG 14 — 68

Ma 0 — 71

E 14 — 70

Gc 2 — 71

85

B 77

G 14 — 74

PM 14 — 73

N 14 — 75

S 6 — 73

Ws 14 — 73

Barometers on East Coast Steady.

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.; b stands for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W.P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C.G, Jervis Bay; Ws, Wollongong; S, Sydney; N, Newcastle; P.M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given by figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light southerly winds and smooth sea. Barometers risen slightly generally.

South Australia.—On south coast generally cloudy and sultry, with light southerly winds, slightly risen barometers, and smooth sea. Inland generally fine with clouds in places, and northerly winds. In Northern Territory, cloudy with variable winds. Rainfall: Tennant's Creek, 0·62; Daly Waters, 0·52; Alice Springs, 0·16; Port Darwin, 0·02.

Victoria.—On coast, fine with northerly winds, slightly fallen barometers, and smooth sea. Foggy at Portland, smoke haze at other places. Inland with variable winds.

Tasmania.—At Low Heads: Fine and hazy, with north-east wind, steady barometer, and temperature at 9 a.m. 67°.

New Zealand.—Cloudy with north wind and steady barometer at extreme north; fine with S.E. wind and steady barometer at Wellington; cloudy with west wind and barometer risen one tenth at extreme south.

New South Wales.—On coast generally fine, with light N.E. and N.W. winds; barometers risen slightly north, and fallen slightly south of Sydney; sea smooth. Inland, cloudy in S.W. parts, with north and north-west winds, and steady barometers. No rain.

Extra Stations.—Isundarra, max. 88°, min. 44°; fine, calm. Bateman's Bay: Temperature at 9 a.m. 66°; calm and fine; sea smooth; Morangarelli: Max. 93°, min. 66°, fine, with N.E. wind. For further particulars see map.

Queensland.—Fine, with S.E. winds on east coast, slightly fallen barometers and moderately smooth sea. Temperature at Cooktown, 9 a.m., 95°, and rainfall 0·80 inch.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N., 12, very hot, temperature 104°; Cape Otway, W., 12, foggy, moderate sea, temperature 66°; Portland, S.S.W., 12, cloudy, smooth sea, temperature 67°; Wilson's Promontory, calms, smoke haze, hot, smooth sea, temperature 94°.

New South Wales.—Cape St. George, N., 42, fine, smooth sea, temperature 76°; Clarence River, S.S.E., fine, smooth sea, temperature 82°; Deniliquin, calm, fine, temperature 98°; Dubbo, N.W., fine, temperature 89°; Goulburn, E.N.E., 14, fine, temperature 81°; Moruya, N.E., 42, fine, smooth sea, temperature 76°; Newcastle, E., 14, fine, smooth sea, temperature 75°; Port Macquarie, S.E., 14, fine, smooth sea, temperature 82°; Sydney, N.E., 22, fine, smooth sea, temperature 75°.

There is nothing in the 3 p.m. Melbourne telegrams explanatory of the great difference between the temperatures at Melbourne and Cape Otway, except that the wind had changed on the coast at Portland to S.S.W., and though W. at Cape Otway may have been changing to cool wind at 3 p.m.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 9 inches above summer level; at Hay, below summer level; at Balranald, 10 inches above summer level. Murray: at Albury, 8 inches above summer level; at Euston, 2 feet 9 inches above summer level. Darling: At Wentworth, 1 foot above summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, 1 foot 10 inches above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 20.

Sun rises at 5.41, sets at 6.46; Moon rises at 7·59 p.m., sets at 6·41 a.m.; Mercury, 5.16 a.m., 6.44 p.m.; Venus, 5.37 a.m., 6.3 p.m.; Mars, 7.49 p.m., 7.15 a.m.; Jupiter, 8.15 p.m., 8.20 a.m.; Saturn, 3.9 p.m., 1.3 a.m. New moon 4th, full moon 19th.

High water at Fort Denison, February 19: 9.24 a.m., 9.45 p.m.

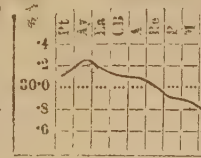
Stations	wt	Max	Min	R'in
Albury	b	106	57	0
Armidale	b	81	51	0
Balranald	g	126	65	0
Bathurst	b	100	56	0
Bend'm'r	b	92	51	0
Bodalla	b	91	—	0
Bourke	b	114	69	0
C'md'n H.	b	76	64	0
C.St. Geo.	b	94	65	0
Carcoar	b	86	59	0
Cessnock	b	86	52	0
Casilis	b	90	62	0
Clarence	b	85	63	0
C'nd'b'lin	b	90	64	0
Cooma	b	103	45	0
Coonab'n	b	101	51	0
Cnamble	b	—	—	0
Cowra	b	110	77	0
Deniliq'n	b	117	75	0
Dubbo	h	105	70	0
Eden	b	76	68	0
Euston	g	117	68	0
Forbes	b	102	63	0
G'n Inn's	b	93	56	0
Goulburn	b	107	54	0
Grafton	b	85	65	0
Gulgong	b	88	66	0
Gunned'h	b	100	68	0
Hay	c	113	70	0
Hill End	b	—	—	0
Inverell	b	92	58	0
Kiandra	b	85	44	0
Lismore	b	86	60	0
Maitland	b	87	58	0·10
Marsdens	b	104	75	0
Menindie	g	105	82	0
Molong	b	103	63	0
Mores	b	100	70	0
Moruya	h	81	61	0
Moss Vale	h	88	62	0
Mt. Hope	b	102	—	0
M.Vict'ria	b	93	64	0
Mudgee	b	104	54	0
M'rr'mb'bh	b	108	66	0
M'rr'ndi	b	90	61	0
Mus'lbr'k	b	95	57	0
Narrabri	h	98	66	0
Newcastle	b	80	62	0
Nowra	—	—	—	—
Orange	b	89	56	0
Picton	h	91	55	0
P. M'q'rie	b	78	58	0
P. St'ph'n	b	83	60	0
Q'nbeyan	b	92	64	0
Quirindi	b	107	65	0
Singleton	b	90	64	0
SYDNEY	h	80	63	0
Tamw'rth	—	—	—	—
Taralga	b	101	60	0
Taree	b	85	58	0
T'nt'rfield	b	81	53	0
Wagga	b	90	63	0
Walcha	b	87	48	0
Walgett	b	101	67	0
W'ntw'rth	c	113	67	0
Wilcannia	h	—	—	0
W'll'ng'ng	b	83	67	0
Young	b	110	62	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 37 years..... 49·82
Average for 31 years from Jan. 1st to January 31st 3·52
Total Rain from January 1st to February 20th 3·20
Barometer corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.



Fine, wind N. Clo in E.
T. storm, Rain, wind S. wind W
If it is CALM, the symbol is used without the arrow.
Smooth sea
Heavy sea.
Very heavy sea.

TIME BALL
Drops at 1 p.m. S.M.T
2h. 55m. 9·19s. a.m
Greenwich Mn. Time
Mag. Var. 9° 35′ 37″ E

Barometers on East Coast fallen 0·20

H.C. RUSSELL.
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x, gives the maximum temperature for previous 24 hours; M'n the corresponding minimum temperature at 9 a.m. the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ad, Adelaide; Eu, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W, Wilson's Promontory; Ga, Gabo; E, Eden; Ma, Moruya; C, Cape Jervis Lan, Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given: figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds precede them, and southerly following.

Western Australia.—On South Coast: Cloudy, with east winds, high barometer, and smooth sea. Perth, fine, with south wind and smooth sea.

South Australia.—On South Coast: Cloudy, with fresh southerly winds and smooth sea; raining and squally at Cape Borda; inland and in Northern Territory cloudy, with N.E. and N.W. winds and rising barometers. Rainfall at Tennant's Creek: One inch.

Victoria.—On Coast: Raining and cloudy generally, with southerly winds, and barometers fallen about 0·07, sea smooth. Passing showers and hazy at Melbourne; light rain and misty at Cape Otway; heavy showers and squally at Wilson's Promontory. Inland: Cloudy, with southerly winds; barometer fallen 0·20; light rain recorded on coast during last 27 hours.

Tasmania.—At Low Heads: Calm, misty, light rain; temperature at 9 a.m., 57°. Rainfall, 0·21".

New Zealand.—Extreme north of North Island: N.W. wind, cloudy weather; barometer, 29·6. Extreme south of North Island: S.E. wind and cloud weather; barometer, 29·7. Extreme south of Middle Island: East wind with fine weather; barometer, 29·8.

New South Wales.—On coast: Fine, with light variable winds and calms; hazy in places south of Sydney, and foggy at Gabo Island; sea smooth; barometers fallen about 0·20 inch. Inland: Cloudy in S.W. parts; barometers fallen slightly generally.

Extra observations.—Bateman's Bay: Calm and fine, temperature 70°, sea smooth. Bundarra: Max. 91°, min. 46°; calm, fine, and hazy. Wellington: Max. 103°, min. 66°, N.W. wind and fine weather. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, S.W., 13, foggy, overcast, showery, squally, rough sea, temperature 56°; Portland, S.W., 34, passing showers, smooth sea, temperature 59°.

New South Wales.—Bateman's Bay, N.W., 43, fine, temperature 96°; Cape St. George, N., 42, fine, smooth sea, temperature 85°; Clarence River, N.E., fresh, fine, smooth sea, temperature 79°; Deniliquin, S.W., dull, temperature 84°; Dubbo, N.W., 14, fine, hazy, temperature 88°; Eden, E., 14, fine, light E. sea, temperature 78°; Walgett, calm, fine, hot, temperature 96°; Goulburn, N., fine, hot, temperature 84°; Menindie, S., fine, clear, temperature 86°; Moruya, W., 28, hot wind, cloudy, moderate sea, temperature 96°; Newcastle, N.N.E., light, fine, smooth sea, temperature 84°; Port Macquarie, N.N.E., 42, fine, smooth sea, temperature 79·2; Sydney, N.E., light, fine, hot, and hazy, smooth sea, temperature 88°; Wentworth, S., fine, temperature 72°. Morning reports (Saturday, 3 p.m.), hot westerly wind, cloudy, threatening appearance to south, sea moderate; and at 3.5 p.m., strong westerly gale. The southerly reached Sydney at 8·40 p.m. on Saturday.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 8 inches above summer level; at Hay, summer level; at Balranald, 8 inches above summer level. Murray: at Albury, 6 inches above summer level; at Euston, 3 feet above summer level. Darling: At Wentworth, 1 foot 1 inch above summer level; at Pooncarie, low; at Menindie, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 22.

Sun rises at 5.43, sets at 6.44; Moon rises at 9·20 p.m., sets at 8·54 a.m.; Mercury, 5.25 a.m., 6.45 p.m.; Venus, 5.23 a.m., 6.6 p.m.; Mars, 7.40 p.m., 7.3 a.m.; Jupiter, 8.6 p.m., 8.12 a.m.; Saturn, 3.1 p.m., 12.55 a.m. New moon 4th, full moon 19th.

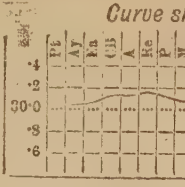
High water at Fort Denison, February 22: 10.16 a.m., 11.7 p.m.

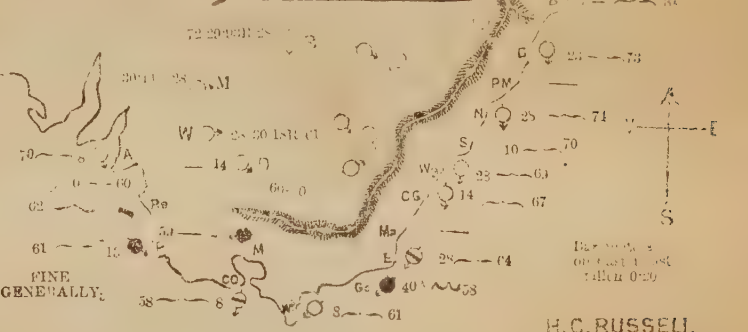
Stations	wt	Mx.	mn	R'fin
Albury	b	96	52	0·20
Armidale	–	—	—	—
Balranald	b	85	37	0
Bathurst	b	100	51	0
Bend'm'r	b	90	61	0
Bodalla ..	–	—	—	—
Bourke ..	b	89	56	0
C'md'n H.	–	—	—	—
C. St. Geo.	b	94	56	0·20
Carcoar ..	b	88	56	0·11
Casino ..	–	—	—	—
Cassilis ..	c	84	64	0
Clarence	b	84	54	0
C'nd'b'lin	b	80	46	0
Cooma ..	c	62	46	0·40
Coonab'n	b	88	57	0
C'nam ble	b	—	—	0
Cowra ..	b	81	59	0·10
Deniliq'n	b	98	45	0
Dubbo ..	b	95	53	0
Eden	u	64	58	1·00
Euston ..	b	83	67	0
Forbes ..	b	80	53	0
Gl'n Inn's	u	102	58	0
Goulburn	b	72	42	0·10
Grafton ..	u	101	71	0
Gulgong	b	92	74	0
Gunned'h	b	99	69	0
Hay	b	81	48	0
Hill End	b	—	—	0
Inverell ..	b	91	61	0
Kiandra	b	85	38	0·83
Lismore	–	—	—	—
Maitland	c	101	62	0
Marsdens	–	—	—	—
Menindie	b	78	58	0
Molong ..	b	86	51	0
Morse ..	b	94	62	0
Moruya ..	–	—	—	—
Moss Vale	b	71	49	0
Mt. Hope	b	76	62	0
M. Vict'ria	b	94	46	0
Mudgee ..	b	102	54	0
M'r'm'bh	b	82	55	0·05
M'r'r'ndi	b	93	61	0
Mus'br'k	c	95	65	0
Narrabri	b	98	57	0
Newcastle	b	80	67	0
Nowra ..	–	—	—	—
Orange ..	b	69	47	0·02
Picton ..	b	79	50	0
P. M'q'rie	–	—	—	—
P. St'ph'n	c	79	61	0·05
Q'nbeyan	b	96	53	0
Quirindi	b	105	70	0
Singleton	c	92	64	0
Sydney ..	g	83	63	0
Tamw'rth	–	—	—	—
Taralga ..	b	93	50	0
Taree	–	—	—	—
Tnt'rfield	–	—	—	—
Wagga ..	b	88	55	0
Walcha ..	b	88	58	0
Walgett ..	g	83	50	0
W'ntw'rth	p	78	53	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	81	58	0
Young ..	b	88	51	0

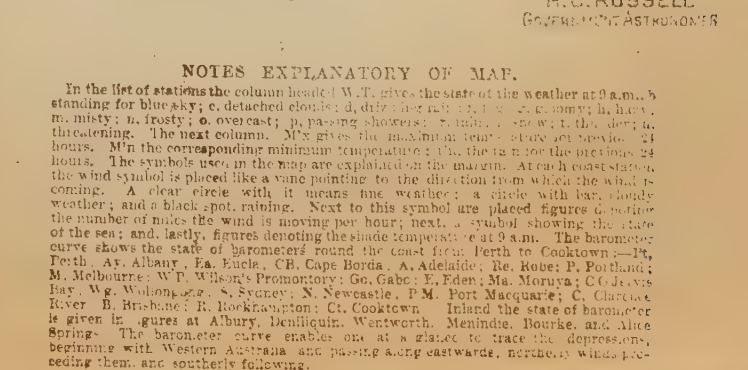
SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·862
Average for 28 years from Jan. 1st to January 31st 3·523
Total Rainfall from January 1st to February 22nd 3·306
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.







H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, dull; g, rain; f, fog; o, cloudy; h, hazy; m, misty; r, frosty; o, overcast; p, passing showers; s, sleet; w, snow; t, thunder; a, threatening. The next column, Mx gives the maximum temperature observed during 24 hours. Mn the corresponding minimum temperature; R'fin the rain for the previous 24 hours. The symbols used in the map are explained in the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Spring. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—On South Coast: North easterly winds, with rain at Albany, fallen barometer, and smooth sea. Rainfall: Albany, 0·75.

South Australia.—On South Coast: Fine, but cloudy, with southerly winds, smooth sea, and rising barometers. Inland: South and east winds, and cool generally. In Northern Territory: Calm, fine, and hot. Rainfall: Port Darwin, 1·10.

Victoria.—On Coast: Cloudy and showery, with S.E. and S.W. winds and moderately smooth sea; barometers risen generally. Misty at Cape Otway and Portland. Passing showers at Melbourne; fine inland. At Lake Entrance cloudy, with N.W. wind and rough sea. Rainfall: Wilson's Promontory, 1·02; Portland, 0·20; Melbourne, 0·54; Cape Otway, 0·07.

Tasmania.—Fine, with southerly winds, on north coast. Misty rain, with S.E. and S.W. wind and moderately smooth sea on S.E. coast.

New Zealand.—Fine generally, with N.E. and S.E. winds. Barometers—At Russell, 30·0; at Wellington, 29·8; at Bluff, 29·2.

New South Wales.—On coast: Fine generally, with southerly winds, and risen barometers; at Gabo Island, sea rough, wind strong from S.W., and squally, weather gloomy; rainfall, 4·50 inches. Inland: Fine, with variable winds, risen barometers, and cool generally.

Extra Stations.—Bundarra: Max. 83°, min. 56°, and fine weather. Morangarell: Max. 71°, min. 55°, and fine weather. For further particulars see map.

Queensland.—Fine generally, with north and N.E. winds, and smooth sea. No rain.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.W., 8, cloudy and gloomy, temperature 63°; Cape Otway, S.W., 8, cloudy and misty, smooth sea, temperature 59°; Lake Entrance, W., 23, fine, moderate sea, temperature 68°; Wilson's Promontory, E., 8, fine, moderate sea, temperature 68°.

New South Wales.—Bateman's Bay, E., 42, fine, smooth sea, temperature 68°; Clarence River, calm, fine, heavy swell, temperature 71°; Cape St. George, S., 28, fine, smooth sea, temperature 77°; Deniliquin, calm, fine, temperature 76°; Dubbo, calm, fine, temperature 72°; Eden, S.W., 28, fine, smooth sea, temperature 66; Goulburn, S.W., 14, fine, temperature 76°; Menindie, S.W., fine, temperature 75°; Newcastle, S.E., 28, fine, moderate sea, temperature 71°; Port Macquarie, S., 28, cloudy, smooth sea, temperature 77°; Sydney, S.E., 17, fine and clear, smooth sea, temperature 73°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, summer level; at Balranald, 4 inches above summer level. Murray: At Albury, 6 inches above summer level, at Euston, 3 feet 8 inches above summer level. Darling: At Wentworth, 2 feet 2 inches above summer level; at Pooncarie, summer level; at Menindie, summer level; at Wilcannia, 1 foot 11 inches above summer level; at Bourke, 1 foot above summer level.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 23.

Sun rises at 5.44, sets at 6.43; Moon rises at 9·59 p.m., sets at 9·35a.m.; Mercury, 5.30 a.m., 6.46 p.m.; Venus, 5.17 a.m., 5.44 p.m.; Mars, 7.35 p.m., 6.57 a.m.; Jupiter, 8.2 p.m., 8.7 a.m.; Saturn, 2.57 p.m., 12.51 a.m. New moon 4th, full moon 19th. High water at Fort Denison, February 23: 11.27 a.m., 11.47 p.m.

Stations	wt	Mx	Mn	r'fn
Albury	b	84	55	0
Armidale	b	88	58	0
Balranald	b	96	43	0
Bathurst	b	82	49	0
Bend'n'r	b	86	59	0
Bodalla ..	–	—	—	—
Bourke ..	b	94	58	0
C'md'n H.	c	77	63	0
C. St. Geo.	b	90	63	0
Carcoar ..	b	75	45	0
Casino ..	–	—	—	—
Cassilis .	c	80	62	0
Clarence	c	95	63	0
C'nd'b'lin	b	85	48	0
Cooma ..	c	71	46	0
Coonab'n	L	89	47	0
C'nam ble	b	—	—	0
Cowra ..	b	83	57	0
Deniliq'n	b	87	51	0
Dubbo ..	h	91	54	0
Eden	c	70	58	0
Euston ..	b	88	52	0
Forbes ..	b	83	54	0
Gl'n Inn's	g	84	63	0
Goulburn	b	79	51	0
Grafton ..	b	99	65	0·04
8—77				
Ea.				
Gulgong	b	88	69	0
Gunned'h	–	—	—	—
Hay	b	91	51	0
Hill End	b	—	—	0
Inverell ..	o	69	62	0
Kiandra	b	66	35	0
Lismore	–	—	—	—
Maitland	b	85	55	0
Marsdens	b	87	64	0
Menindie	b	80	58	0
Molong ..	u	84	53	0
Moree ..	b	98	66	0
Moruya ..	b	95	58	0
Moss Vale	b	73	56	0
Mt. Hope	b	70	62	0
M. Vict'ria	b	77	48	0
Mudgee ..	b	91	5	0
M'rr'm'bh	b	8	9	0
M'rr'r'ndi	b	8	39	0
Mus'br'k	b	/	55	0
Narrabri	b	94	58	0
Newcastle	b	77	63	0
Nowra ..	c	81	59	0
Orange ..	b	74	68	0
Picton ..	b	78	55	0
P. M'q'rie	b	77	63	0
P. St'ph'n	c	78	56	0
Q'nbeyan	b	74	56	0
Quirindi	b	97	67	0
Singleton	b	82	62	0
SYDNEY ..	b	83	62	0
Tamw'rth	–	—	—	—
Taralga ..	b	91	52	0
Taree	b	76	61	0
T'nt'rfield	–	—	—	—
Wagga ..	b	89	50	0
Walcha ..	o	79	56	0
Walgett ..	b	91	59	0
W'ntw'rth	b	88	57	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	80	—	0
Young ..	b	95	55	0

SYDNEY OBSERVATORY.

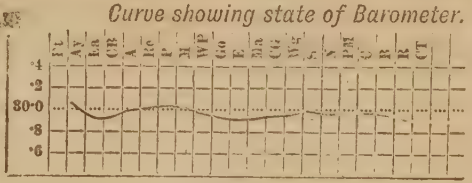
LATITUDE 33°51′41″ S.; LONGITUDE 10h. 4m. 50·61s. E.

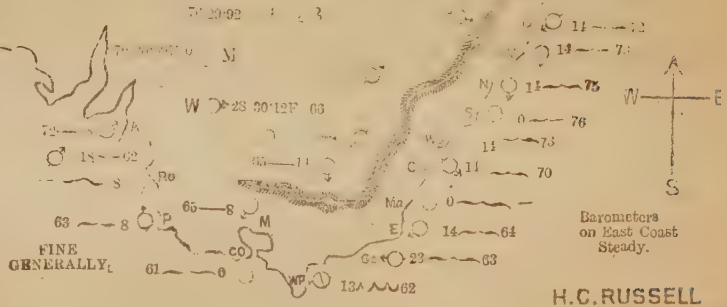
Average Annual Rainfall for 27 years ..... 49·862

Average Rainfall from January 1st to January 23rd ..... 2·190

Total Rainfall from January 1st to January 23rd ..... 2·190

Barometer is corrected to the Level of Mean Sea Level.





H.C.RUSSELL

GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b. standing for blue sky; c. detached clouds; d. drizzling rain; f. fog; g. gloomy; h. hazy; m. misty; n. frosty; o. overcast; p. passing showers; r. rain; s. snow; t. thunder; u. threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n. the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth. Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WT, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; C, Cooktown. Inland the state of barometer is given at Bourke, Cape at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On south coast, light rain and cloudy, with fresh S.E. and S.W. winds and rough sea; on west coast, fine, with light west wind and smooth sea. Perth alone, E. wind. Rainfall—Albany, 1·60; Esperance Bay, 0·96.

South Australia.—On south coast, fine and hot, with light north-east and north-west winds and smooth sea; raining, with S.W. wind, at M'Donnell Bay; inland and in northern territory, fine, with N.E. winds in south and centre, and calm in north. Rainfall—Port Darwin, 0·25.

Victoria.—On coast fine, with northerly winds, and smooth sea generally; at Wilson's Promontory cloudy, with light west wind and rough sea; misty at Cape Otway. Inland, fine and cool, with south winds and calm. Barometers on coast fallen about one-tenth.

Tasmania.—Calm and cloudy on east coast, fine with south winds on south and west coasts, calm and cloudy on north coast. Rainfall—At Southport, 2·47; at Low Heads, 0·61.

New Zealand.—Generally fine, with light east winds, and barometers at 30·1; at Gisborne, lower, the wind is strong.

New South Wales.—On coast, fine, with light southerly winds, steady barometers, and moderately smooth sea. Inland, fine, with E. and S.E. winds and slightly fallen barometers. At Gabo Island, rainfall 0·30.

Extra Stations.—Bundarra: Max. 91°, min. 59°; cloudy and S. wind. Morangarell: Max. 83°, min. 56°; fine, clear, with S. wind. Bateman's Bay: Temperature, 9 a.m., 73°; fine weather and smooth sea. (For further particulars see map.)

Queensland.—On extreme N.E. coast, calm, fine, and sultry; at Rockhampton and Brisbane, fine, with N.E. winds, sea smooth; no rain.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 8, cloudy, temperature 66°; Lake Entrance, S.W., 18, fine, moderate sea, temperature 68°; Portland, E., 13, cloudy, smooth sea, temperature 65°; Wilson's Promontory, S.W., 13, fine but cloudy, moderate sea, temperature 65°.

New South Wales.—Bateman's Bay, E., 12, fine, smooth sea, temperature 68°; Cape St. George, S.E., 14, fine, smooth sea, temperature 73° Clarence River, S.E., 14, fine, smooth sea, temperature 80°; Deniliquin, calm, fine, temperature 80°; Dubbo, calm, fine, temperature 81°; Eden, E., 14, fine, smooth sea, temperature 67°; Goulburn, N.W., fine, temperature 73°; Menindie, calm, fine, and hot, temperature 80°; Moruya, S.E., 30, fine, smooth sea, temperature 71°; Newcastle, S.E., fine, smooth sea, temperature 74°; Port Macquarie, E., 28, fine, smooth sea, temperature 81°; Sydney, E.N.E., 12, fine, smooth sea, temperature 74°; Wentworth, W., 28, fine, temperature 75°; Walgett, N.N.W., 14, fine, temperature 90°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, below summer level; at Balranald, summer level. Murray: At Albury, 6 inches above summer level; at Euston, 4 feet above summer level. Darling: At Wentworth, 2 feet above summer level; at Menindie, 2 feet above summer level; at Wilcannia, 1 foot 10 inches above summer level; at Bourke, 9 inches above summer level.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 24.

Sun rises at 5.45, sets at 6.41; Moon rises at 10·40 p.m., sets at 10·59 a.m.; Mercury, 5.55 a.m., 6.47 p.m.; Venus, 5.11 a.m., 5.38 p.m.; Mars, 7.30 p.m., 6.52 a.m.; Jupiter, 7.58 p.m., 8.3 a.m.; Saturn, 2.53 p.m., 12.47 a.m. New moon 4th, full moon 19th. High water at Fort Denison, February 24: — a.m., 12.7 p.m.

METEOROLOGICAL REPORTS AND MAP FOR FEBRUARY 24, 1886.

Stations	wt.	Mx.	Mn.	R'in
Albury	d	90	63	0.21
Armidale	b	87	60	0
Balranald	b	99	52	0·02
Bathurst	g	89	56	0
Bend'm'r	g	90	61	0
Bodalla ..	-	—	—	—
Bourke ..	c	103	61	0
C'md'n H.	c	81	71	0
C. St. Geo.	c	76	63	0
Carcoar ..	u	75	64	0
Casino ..	b	84	63	0
Cassilis ..	c	85	64	0
Clarence	b	99	71	0
C'nd'b'lin	b	87	54	0
Cooma ..	b	84	47	0·05
Coonab'n	g	96	53	0
C'nam ble	c	—	—	0
Cowra ..	g	94	62	0
Deniliq'n	r	96	50	0·02
Dubbo ..	u	95	51	0
Eden	u	74	68	0
Euston ..	b	95	53	0
Forbes ..	u	92	67	0
Gl'n Inn's	g	95	64	0
Goulburn	g	88	57	0
Grafton ..	b	94	71	0
Pt.				
Gulgong	b	86	68	0
Gunned'h	b	96	65	0
Hay	c	86	61	0·07
Hill End	u	—	—	0
Inverell ..	u	79	40	0
Kiandra	r	70	49	0·19
Lismore	b	83	70	0
Maitland	b	84	62	0
Marsdens	u	94	68	0
Menindie	b	88	70	0
Molong ..	u	93	55	0
Moree ..	b	101	67	0
Moruya ..	g	77	62	0
Moss Vale	-	—	—	—
Mt. Hope	b	75	60	0
M. Vict'ria	c	84	54	0
Mudgee ..	g	94	57	0
M'rr'm'bh		92	69	0
M'rr'r'ndi	g	84	71	0
Mus'br'k	b	94	60	0
Narrabri	b	96	57	0
Newcastle	b	78	64	0
Nowra ..	c	80	55	0
Orange ..	g	80	54	0
Picton ..	o	83	60	0
P. M'q'rie	b	81	69	0
P. St'ph'n	g	83	66	0
Q'nbeyan	c	79	60	0
Quirindi	u	105	66	0
Singleton	b	86	66	0
Sydney ..	c	77	69	0
Tamw'rth	-	—	—	—
Taralga ..	g	90	58	0
Taree	g	85	66	0
T'nt'rfield	u	85	62	0
Wagga ..	r	92	61	0·10
Walcha ..	o	83	59	0
Walgett ..	u	96	68	0
W'ntw'rth	b	98	62	0·04
Wilcannia	b	—	—	0
Wil'ng'ng	b	79	—	0
Young ..	r	98	56	0·05

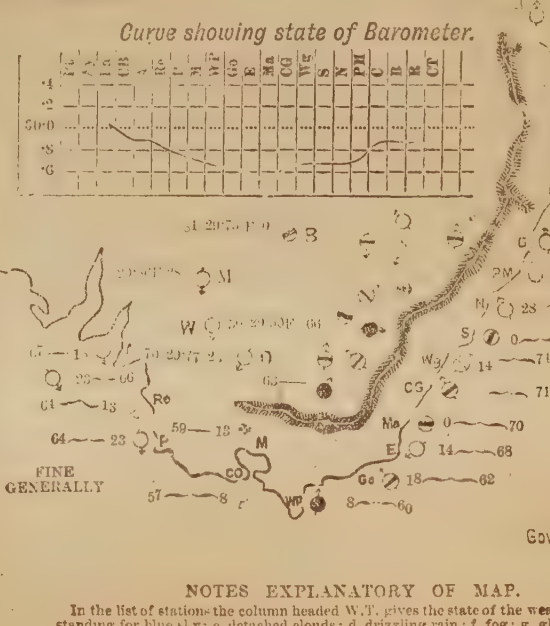
SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 28 years from Jan. 1st to January 31st 3·623
Total Rainfall from January 1st to February 24th 3·316
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.

Fine, wind N. Clo in E. T. storm, wind S. Rain, wind W.
If it is CALM, the syn is used without the arr
Smooth sea.
Heavy sea.

TIME BALL, Drops at 1 p.m. S.M.T. 2h. 30m. in G. Greenwich Mn. T. Mag. Var. 9° 37′ E.



H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Downs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—On south coast, cloudy, with fresh south winds, fallen barometers, and smooth sea. Rainfall—At Adelaide, 0·67; M'Donnell Bay, 0·07; Cape Borda, 0·02. Inland and Northern Territory, calm, fine, and hot. Rainfall—Port Darwin, 0·05.

Victoria.—On south-west coast fine, with south winds; at Melbourne, raining, with south wind, and on S.E. coast raining and cloudy, with northerly winds. Inland: Calm and cloudy at Omeo; fine with west wind at Echuca. Rainfall—Cape Otway, 0·10; Portland, 0·32; Robe, 0·17; Melbourne, 0·31; Omeo, 0·12.

Tasmania.—On S.E. coast, calm and cloudy; on N. coast, fine, with N.W. wind; on east coast, fine, with S.W. wind.

New Zealand.—Raining and steady barometer extreme north; fine, with N.W. wind, and slightly fallen barometer at Wellington; cloudy, with N.N.E. wind, and barometer fallen 0·4, at Bluff.

New South Wales.—On coast, cloudy, with northerly winds, fallen barometers, and smooth sea. Inland, cloudy and raining in S.W. parts; fine in west, with southerly winds.

Extra Stations.—Bundarra: Max. 91°, min. 60°; south wind and cloudy. Morangarell: Max. 91°, min. 65°; cloudy; rainfall, 0·07. Bateman's Bay: Temperature, 69°; S. wind and raining at 9 a.m. Temora reports light rain at 9 a.m.; yesterday's rainfall, 0·17. (For further particulars see map.)

Queensland.—Extreme north part of east coast, calm, with clouds at Townsville, and low barometers; fine, with northerly winds farther south to Brisbane; sea moderately smooth, and no rain.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 13, fine, but cloudy, temperature 65°; Cape Otway, S.W., 8, fine, misty, smooth sea, temperature 66°; Portland, S., 23, fine, but cloudy, smooth sea, temperature 65°; Wilson's Promontory, S.W., 13, cloudy, smooth sea, temperature 66°.

New South Wales.—Bateman's Bay, W., 14, fine, temperature 69°; Cape St. George, N.W., 14, fine, smooth sea, temperature 69°; Deniliquin, S., dull, temperature 76°; Dubbo, calm, raining, temperature 78°; Goulburn, N.W., 14, dull, temperature 70°; Moruya, N.E., 28, fine, smooth sea, temperature 71°; Newcastle, calm, dull, smooth sea, temperature 76°; Port Macquarie, N.N.E., 23, fine, smooth sea, temperature 81°; Sydney, W., 18, cloudy, smooth sea, temperature 73°; Walgett, S.W., fine, temperature 92°.

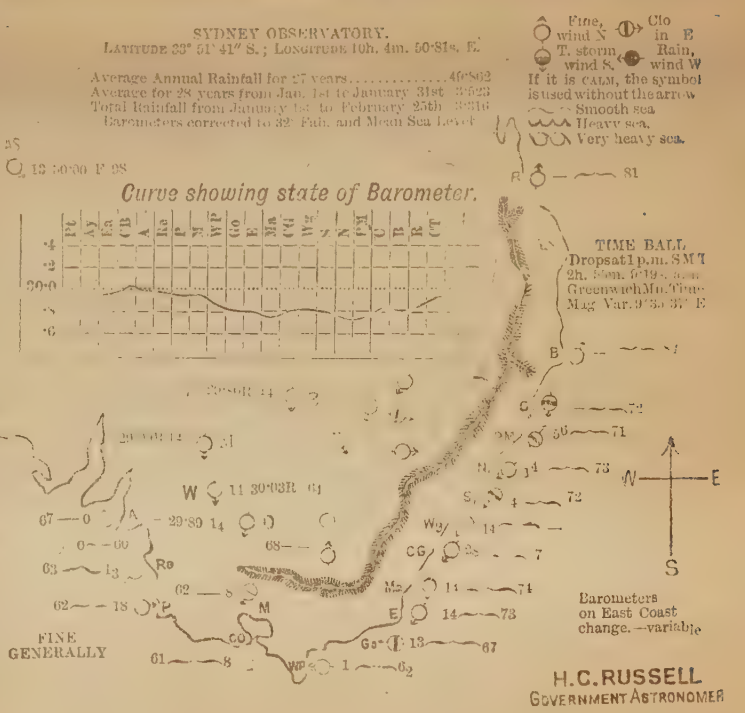
STATE OF RIVERS.

Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, below summer level; at Balranald, summer level. Murray: At Albury, 6 inches above summer level; at Euston, 4 feet 4 inches above summer level. Darling: At Wentworth and Pooncarie, low; at Menindie, 2 feet 3 inches above summer level; at Wilcannia, 1 foot 9 inches above summer level; at Bourke, summer level.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 25.

Sun rises at 5.46, sets at 6.40; Moon rises at 11·25 p.m., sets at 11·58 a.m.; Mercury, 5.40 a.m., 6.38 p.m.; Venus, 5.5 a.m., 5.33 p.m.; Mars, 7.25 p.m., 6.46 a.m.; Jupiter, 7.54 p.m., 7.8 a.m.; Saturn, 2.49 p.m., 12.43 a.m. New moon 4th, full moon 19th.
High water at Fort Denison, February 25: 12·30 a.m., 12.52 p.m.

Stations	wt	Mx	mn	r'in
Albury	b	77	58	0
Armidale	u	82	58	0·18
Balranald	b	87	44	0
Bathurst	b	74	47	0
Bend'm'r	g	88	59	0·44
Bodalla ..	–	—	—	—
Bourke ..	b	100	58	0
C'md'n H.	u	86	67	0·35
C. St. Geo.	b	79	64	0
Carcoar ..	b	69	55	0·54
Casino ..	u	98	70	0·54
Cassilis ..	c	85	63	0·30
Clarence	o	93	65	0·05
C'nd'b'lin	b	79	46	0·06
Cooma ..	b	84	48	0·06
Coonab'n	b	95	55	0·10
C'nam ble	b	—	—	0
Cowra ..	b	75	60	0·34
Dubbo ..	b	92	54	0
Eden ..	b	73	69	0
Euston ..	b	87	53	0
Forbes ..	b	89	53	0·17
Gl'n Inn's	u	86	63	0·24
Goulburn	b	71	54	0·16
Grafton ..	r	105	64	0·93
Gulgong	b	81	66	0·24
Gunned'h	b	97	64	0·14
Hay	b	81	51	0
Hill End	b	—	—	0·44
Inverell ..	b	89	67	0
Kiandra	b	59	48	0·31
Lismore	c	96	76	0·02
Maitland	g	92	61	0·20
Marsdens	b	76	63	0·20
Menindie	b	82	65	0
Molong ..	c	83	52	0·42
Moree ..	b	98	68	0
Moruya ..	b	79	60	0·11
Moss Vale	b	71	56	0·09
Mt. Hope	b	71	62	0
M. Vict'ria	b	84	47	0·52
Mudgee ..	b	84	48	0·20
M'rr'm'bh	b	74	58	0·37
M'rr'ndi	c	85	70	0·58
Mus'br'k	b	97	56	0·35
Narrabri	g	97	53	0·11
Newcastle	b	89	64	0·02
Nowra ..	–	—	—	—
Orange ..	b	73	48	0·28
Picton ..	b	74	53	0
P. M'q'rie	o	85	65	0·29
P. St'ph'n	b	89	60	0
Q'nbeyan	b	69	58	0·34
Quirindi	b	91	65	0·23
Singleton	b	86	62	0·25
Sydney ..	c	81	60	0
Tamw'rth	b	92	60	0·16
Taralga ..	b	75	52	0·38
Taree	g	90	67	0·63
T'nt'rfield	u	89	65	0
Wagga ..	b	77	53	0·20
Walcha ..	o	80	55	0·64
Walgett ..	b	102	62	0
W'ntw'rth	b	81	58	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	80	—	0·01
Young ..	b	72	53	0·27



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.. b standing for blue sky; c. detached clouds; d, drizzling rain; f, fog; g. gloomy; h, hazy; m, misty; n. frosty; o. overcast; p. passing showers; r. rain; s, snow; t. thunder; u. threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; and the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W.P. Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C.G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P.M. Port Macquarie; C, Clarence River; B Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—South coast generally fine, with variable winds and calm; raining, with east wind, at Eucla; dense fog at Streaky Bay in early morning. Rainfall—At M'Donnell Bay, 0·02; at Eucla, 0·04. In the interior fine and hot, with light variable winds and calm; extreme north fine, with N.W. wind. Smooth sea and risen barometers on coast.

Victoria.—Coast generally fine, with light variable winds, risen barometers, and smooth sea; dense fog at Cape Otway, and cloudy at Melbourne. Rainfall—Portland, 0·04; Wilson's Promontory, 0·23; Lake Entrance, 0·30. Inland, calm and fine. Rainfall—At Omeo, 0·25; Melbourne, 0·01.

Tasmania.—South and east coasts fine, with W. and N.W. winds. Rainfall—At Hobart, 0·02. On north coast west wind, fine weather, and temperature at 9 a.m. 61°.

New Zealand.—Calm, with passing showers and fallen barometer, at extreme north; fine, with west winds, at extreme south and at Wellington.

New South Wales.—On coast, generally fine, with south-west winds, and smooth sea; barometers risen about 0·14. Inland, fine, with S. and S.E. winds. Light rain is reported from most of the stations.

Extra Stations.—Bundarra: Max. 87°, min. 61°; rain, 0·10; very heavy storm during night, with strong west wind. Morangarell: Max. 71°, min. 58°; rain, 0·15; fine and clear weather. Bateman's Bay: West wind; temperature at 9 a.m., 69°; fine weather. Temora: Rainfall, 0·06; weather fine. (For further particulars see map.)

Queensland.—Fine, with northerly winds, as far north as Rockhampton. At Cooktown, calm and fine; rainfall, 1·25.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 12, fine, temperature 69°; Cape Otway, W., 6, cloudy, smooth sea, temperature 66°; Portland, W.S.W., 30, fine, smooth sea, temperature 64°; Wilson's Promontory, W., 9, cloudy, smooth sea, temperature 65°.

New South Wales.—Bateman's Bay, E., 42, fine, smooth sea, temperature 73°; Cape St. George, S.S.E., 14, fine, smooth sea, temperature 75°; Deniliquin, S.W., fine, temperature 78°; Dubbo, calm, fine, temperature 76°; Eden, E.S.E., 30, fine, smooth sea, temperature 71°; Goulburn, E.N.E., 14, fine, temperature 73°; Menindie, S., fine, temperature 81°; Moruya, S.E., 30, fine, smooth sea, temperature 74°; Newcastle, S.E., 14, fine, smooth sea, temperature 75°; Port Macquarie, W., 42, dull, smooth sea, temperature 74°; Sydney, S.E., 14, fine, smooth sea, temperature 78°; Walgett, S.E., fine, clear, temperature 85°.

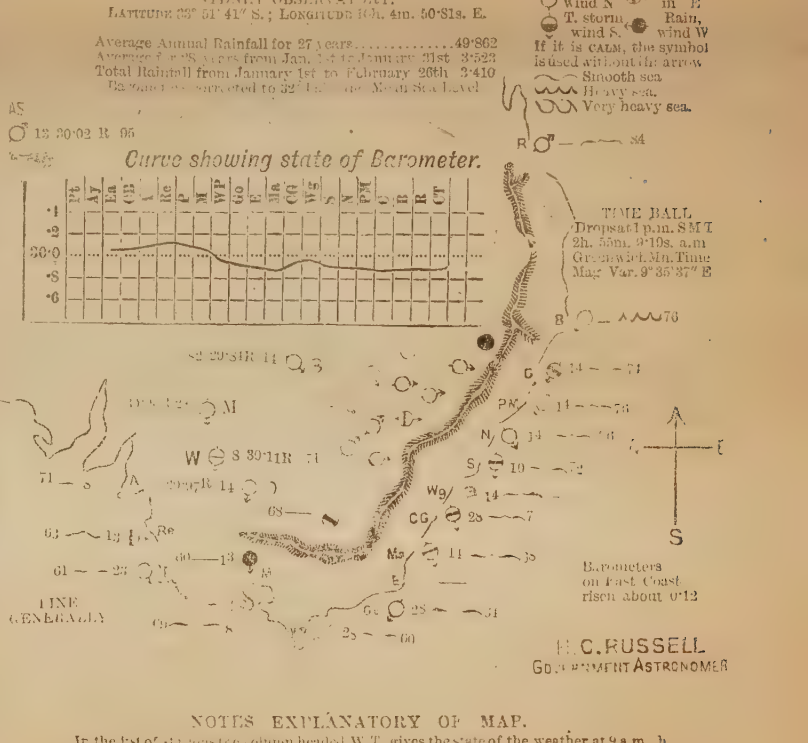
STATE OF RIVERS.

Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, summer level; at Balranald, 4 inches below summer level. Murray: At Albury, 5 inches above summer level; at Euston, 4 feet 3 inches above summer level. Darling: At Wentworth, 2 feet 9 inches above summer level; at Pooncarie, low; at Menindie, 2 feet above summer level; at Wilcannia, 1 foot 8 inches above summer level; at Bourke, 2 feet 1 inch above summer level.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 26.

Sun rises at 5.46, sets at 6.39; Moon sets at 12·55 p.m.; Mercury, 5.45 a.m., 6.49 p.m.; Venus, 3.59 a.m., 5.27 p.m.; Mars, 7.20 p.m., 6.40 a.m.; Jupiter, 7.50 p.m., 7.54 a.m.; Saturn, 2.45 p.m., 12.39 a.m. New moon 4th, full moon 19th. High water at Port Denison, February 26: 1·18 a.m., 1.44 p.m.

Stations	wt	Mx	Mn	R'in
Albury	c	90	60	.0
Armidale	b	71	57	0·20
Balranald	b	100	49	0
Bathurst	b	83	55	0
Bend'm'r	b	78	55	0·07
Bodalla ..	–	—	—	—
Bourke ..	b	91	61	0
C'md'n H.	b	81	60	0
C. St. Geo.	c	81	66	0
Carcoar..	b	74	61	0
Casino ..	o	91	65	0·41
Cassilis ..	c	80	65	..
Clarence	c	93	68	2·20
C'nd'h'lin	b	85	51	0
Cooma ..	o	85	46	0
Coonab'n	b	83	55	0
C'nam ble	b	—	—	0
Cowra ..	b	91	62	0
Deniliq'n	b	97	57	0
Dubbo ..	b	91	62	0
Eden	–	—	—	—
Euston ..	b	92	58	0
Forbes ..	b	89	50	0
Gl'n Inn'.	g	84	52	0·1
Goulburn	b	89	57	0
Grafton ..	u	98	65	1·00
Ed.				
Gulgong	b	80	65	0
Gunned'h	b	89	66	0
Hay	c	88	61	0
Hill End	b	—	—	0
Inverell..	b	87	62	0
Kiandra	b	70	44	0
Lismore	u	88	70	0·6
Maitland	b	84	63	0
Marsdens	b	86	66	0
Menindie	b	84	65	0
Molong ..	u	83	57	0
Moree ..	b	93	66	0
Moruya ..	u	77	67	0
Moss Vale	u	78	59	0
Mt. Hope	b	74	66	0
M.Vict'ria	c	76	52	0
Mudgee ..	b	92	56	0
M'rr'm'bh	b	80	62	0
M'rr'ndi	b	79	62	0
Mus'br'k	b	82	61	0
Narrabri	b	87	62	0
Newcastle	b	79	69	0·10
Nowra ..	–	—	—	—
Orange ..	b	75	53	0
Picton ..	b	84	56	0
P. M'q'rie	b	78	62	0·07
P. St'ph'n	b	86	66	0·10
Q'nbeyan	b	77	65	0
Quirindi	b	97	68	0
Singleton	b	87	67	0
SYDNEY ..	c	82	68	0·09
Tamw'rth	b	87	61	0·09
Taralga ..	g	82	50	0
Taree	g	87	67	0
T'nt'rfield	r	84	59	0·15
Wagga ..	b	80	57	0
Walcha ..	b	67	54	0
Walgett ..	b	89	64	0
W'ntw'rth	c	87	52	0
Wilcannia	b	—	—	0
Will'ng'ng	r	88	—	0·12
Young ..	b	93	58	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for b[illegible]; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next two columns, M'x gives the maximum temperature for previous 24 hours, M'n the corresponding minimum temperature; R'in, the rainfall for the previous 24 hours. The synopsis used in the map are explained on the margin. At each coast station the wind symbols placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers rising the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; La, Lucia, CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in succession at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along east coast, northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, thunderstorm from south-west with misty rain; temperature at 9 a.m., 67°; sea moderately smooth; rainfall, 0·02.

South Australia.—On south coast, cloudy with south and east winds, barometers risen one-tenth, sea smooth; inland and in Northern Territory, from S.E. to N.E. winds and calms, with fine warm weather. Rainfall at Port Darwin, 0·40; at Daly Waters, 0·12.

Victoria.—On coast generally fine with southerly winds, risen barometers, and moderately smooth sea; passing showers of misty rain at Melbourne; misty at Cape Otway. Inland: Cloudy with rain at Omeo; fine with S.W. wind at Echuca.

Tasmania.—Fine but cloudy generally, with moderately smooth sea; on east coast, N.W. winds; on north coast, W. and S.W. winds.

New Zealand.—Generally fine. Russell, calm, barometer 30·06; Wellington, N.W., barometer 29·9; Bluff, N., barometer 29·7.

New South Wales.—Generally unsettled weather, with rain in places; winds southerly; barometers risen slightly, and sea smooth.

Extra Stations.—Bundarra: Max. 82°, min. 60°; calm and fine. Mollangarell: Max. 84°, min. 56°; calm and fine. (For further particulars see map.)

Queensland.—At Brisbane, fine with S.W. wind, and rough sea off Cape Moreton; rainfall, 1·54. At Rockhampton, sultry, with north-east wind; farther north, calm and fine, with moderately smooth sea.

3 P.M. OBSERVATIONS.

Victoria.—Barometer steady. Melbourne, S., 18, cloudy, temperature 64°; Cape Otway, S.W., 6, misty, rough sea, temperature 64°; Portland, S.S.W., 18, fine, smooth sea, temperature 63°; Wilson's Promontory, S.W., 30, squally, moderate sea, temperature 62°; Lake Entrance, S.W., 24, cloudy, moderate sea, temperature 67°.

New South Wales.—Cape St. George, S.E., 14, cloudy, smooth sea, temperature 73°; Clarence River, S., 28, fine, moderate sea, temperature 78°; Dubbo, S.E., 14, fine, temperature 82°; Eden, S., 14, fine, smooth sea, temperature 72°; Goulburn, calm, fine, temperature 75°; Newcastle, S.E., 14, fine, smooth sea, temperature 76°; Port Macquarie, S.E., 14, fine, smooth sea, temperature 83°; Sydney, S., 16, misty rain, smooth sea, temperature 71; Bateman's Bay, S., 14, dull, smooth sea, temperature 69°; Walgett, S.E., fine, temperature 92°.

STATE OF RIVERS.

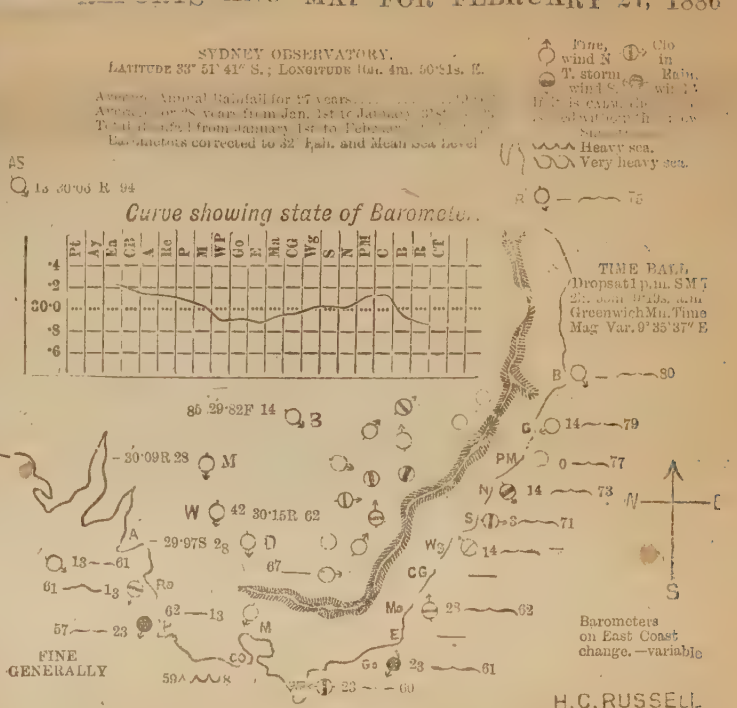
Murrumbidgee: At Wagga, 5 inches above summer level; at Hay, summer level; at Balranald, 8 inches below summer level. Murray: At Albury, 5 inches above summer level; at Euston, 4 feet 3 inches above summer level. Darling: At Wentworth, 2 feet 10 inches above summer level; at Pooncarie, low; at Menindie, 1 foot 7 inches above summer level; at Wilcannia, 1 foot 8 inches above summer level; at Bourke, 2 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR FEBRUARY 27.

Sun rises at 5.47 a.m., sets at 6.38 p.m.; Moon rise sat 12·8 a.m., sets at 1.46 p.m.; Mercury, 5.50 a.m., 6.50 p.m.; Venus, 4.53 a.m., 5.22 p.m.; Mars, 7.15 p.m., 6.35 a.m.; Jupiter, 7.46 p.m., 7.49 a.m.; Saturn, 2.41 p.m., 12.35 a.m. New moon 4th, full moon 19th.

High water at Fort Denison, February 27: 2·16 a.m., 2.50 p.m.

Stations	wt	Mx	Mn	Rain
Albury	b	93	63	0
Armidale	b	75	57	0
Balranald	b	100	49	0
Bathurst	g	84	60	0
Bendemeer	b	85	59	0
Bodalla	b	70	-	0·02
Bourke	b	101	67	0
C'md'n H.	b	81	68	0
C. St. Geo.	–	—	—	—
Carcoar	b	67	55	0
Casino	b	86	66	0
Cassilis	c	82	63	0
Clarence	b	90	68	0
C'nd'b'lin	u	90	58	0
Cooma	c	92	57	0
Coonab'n	h	92	59	0
C'namble	h	—	—	0
Cowra	u	99	63	0
Deniliq'n	b	99	53	0
Dubbo	b	95	62	0
Eden	–	—	—	—
Euston	b	95	56	0
Forbes	g	92	69	0
Gl'n Inn's	b	88	57	0
Goulburn	g	87	61	0
Grafton	b	93	67	0
Ea.				
Gulgong	c	87	60	0
Gunned'h	b	95	71	0
Hay	b	91	61	0
Hill End	u	—	—	0
Inverell	b	88	63	0
Kiandra	u	75	53	0
Lismore	b	85	72	0
Maitland	b	84	69	0·06
Marsdens	b	94	75	0
Menindie	b	84	71	0
Molong	c	90	64	0
Moree	b	99	72	0
Moruya	b	77	61	0·08
Moss Vale	u	74	61	0
Mt. Hope	u	77	71	0
M. Vict'ria	c	77	56	0·05
Mudgee	c	92	62	0
M'rr'm'bh	c	95	67	0
M'rr'ndi	b	81	66	0
Mus'br'k	b	92	69	0
Narrabri	b	94	63	0
Newcastle	c	80	68	0·18
Nowra	–	—	—	—
Orange	g	79	60	0
Picton	g	78	66	0·16
P. M'q'rie	b	82	63	0
P. St'ph'n	g	84	67	0·40
Q'nbeyan	b	81	65	0
Quirindi	b	92	70	- 0
Singleton	b	82	71	0
Sydney	g	78	67	0·07
Tamw'rth	–	—	—	—
Taralga	u	86	63	0
Taree	b	85	67	0
T'nt'rfield	b	81	58	0
Wagga	c	77	65	0
Walcha	b	77	56	0
Walgett	b	95	70	0
W'ntw'rth	b	82	60	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	75	—	0·05
Young	g	100	67	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.. b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Mx gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature; Rain the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing [illegible] from which the wind is coming. A clear circle with [illegible] fine weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature. The barometric curve shows the state of barometers round the coast from Perth to Cooktown.—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; E, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometric curve crosses and at right angles to these [illegible] depressions, beginning with Western Australia and passing along eastwards, the figures winds preceding them and southerly following.

Western Australia.—On the 25th, on west coast, fine but cloudy, with fresh winds from N.W. and S.W. and smooth sea; on 26th, at Esperance Bay, cloudy, with thunderstorm from east. Rainfall 0·40.

South Australia.—On south coast cloudy and rainy, with fresh S. and S.E. winds, risen barometers, and smooth sea; showery at M'Donnell Bay, squally at Streaky Bay; inland fine, with S.E. winds; in Northern Territory calm, fine, and hot. Rainfall—Daly Waters 1·02, M'Donnell Bay 1·33.

Victoria.—On coast unsettled weather, with S.W. and W. winds, barometers fallen slightly; passing showers of light rain at Portland; misty, with rough sea, at Cape Otway; squally, with moderate sea, at Wilson's Promontory; passing showers, with N. wind, at Lake Entrance.

Tasmania.—On north coast fine but cloudy, with W. winds; on east coast fresh W. and N.W. winds; squally at Hobart; passing showers and rough sea at Southport. Rain measured, 0·15.

New Zealand.—Russell, barometer 30·1, calm and fine weather; Wellington, barometer 30·0, S.W. wind, and fine weather; Bluff, barometer 29·8, S.W. wind, and fine weather.

New South Wales.—Generally unsettled weather, with light rain in places; winds on coast light and variable, inland southerly; barometers fallen slightly on coast

Extra Stations.—Morangarell: Max. 93°, min. 73°; N.W. wind and threatening weather. Bundarra: Max. 83°, min. 60°; calm and fine. Bateman's Bay: temperature at 9 a.m., 67 degrees; wind S.E., weather fine, and sea smooth. (For further particulars see map.)

Queensland.—Fine, with south-east winds and smooth sea. Rainfall at Rockhampton, 0·72.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, S.W., 12, misty, rough sea, temperature 58°; Circular Head, S.W., 40, cloudy, moderate sea, temperature 59°; Portland, S.S.W., 31, fine, smooth sea, temperature 63°; Wilson's Promontory, S.W., 40, misty squalls, rough sea, temperature 61°.

New South Wales.—Clarence River, S.E., 10, fine, smooth sea, temperature 70°; Deniliquin, S., fine, temperature 68°; Dubbo, calm, hot, fine, temperature 84°; Eden, S.W., 24, like rain, [illegible] light sea, temperature 64°; Balranald, S., fine, temperature 99°; Goulburn, N.W., cloudy, temperature 80°; Menindie, S., 28, fine, temperature 80°; Moruya, S.S.E., 40, misty squalls, smooth sea, temperature 65°; Newcastle, E., 10, fine, smooth sea, temperature 76°; Port Macquarie, N.E., 28, smooth sea, temperature 83°; Sydney, calm, cloudy, hot sea, temperature 72°; Wentworth, S., 28, fine, temperature 70; Bateman's Bay, S.E., 40, cloudy, temperature 71°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 5 inches above summer level; at Hay, summer level; at Balranald, 8 inches below summer level. Murray: At Albury, 4 inches above summer level; at Echuca, 4 feet above summer level. Darling: At Wentworth, 2 feet 11 inches above summer level; at Pooncarie, Menindie, 1 foot 5 inches above summer level; at Wilcannia, 1 foot 6 inches above summer level; at Bourke, 2 feet 7 inches above summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 1.

Sun rises at 5.49 a.m., sets at 6.35 p.m.; Moon rises 8.30 a.m., sets at 3.22 p.m.; Mercury, 6.1 a.m., 6.51 p.m.; Venus, 4.39 a.m., 5.13 p.m.; Mars, 7.6 p.m., 6.24 a.m.; Jupiter, 7.57 p.m., 7.41 a.m.; Saturn, 2.34 p.m., 12.26 a.m. 5th, 6th, full moon 20th.

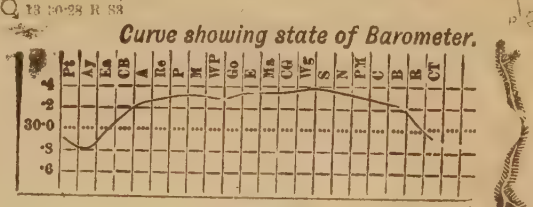
High water at Fort Denison, March 1: 4·35 a.m., 5.8 p.m.

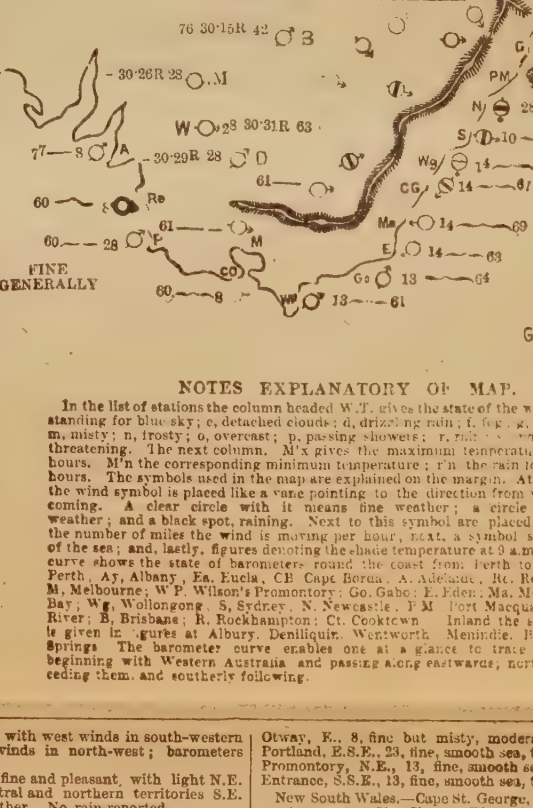
METEOROLOGICAL REPORTS AND MAP FOR MARCH 1, 188

Stations		Mx.	mn.	Rain
Albury	b	86 52		0
Armidale	u	86 52		0
Balranald	b	87 39		0
Bathurst	b	84 55		0
Bend'm'r	g	85 46		0
Bodalla	b	76		0
Bourke	b	98 67		0
C'md'n H.	–	—	—	—
C. St. Geo.	c	93 59		0
Carcoar	b	75 53		0
Casino	c	86 62		0·70
Cassilis	c	74 59		0
Clarence	c	93 67		1·82
C'nd'b'lin	b	89 45		0
Cooma	b	92 31		0
Coonab'n	b	92 54		0
C'nam ble	u	—	—	—
Cowra	b	94 59		0
Deniliq'n	b	96 46		0
Dubbo	b	95 57		0
Eden	b	71 64		0
Euston	–	—	—	—
Forbes	b	86 54		0
Gl'n Inn's	c	88 54		0
Goulburn	b	79 48		0
Grafton	g	84 65		0
Gulgong	b	84 48		0
Gunned'h	b	93 61		0
Hay	b	81 51		0
Hill End	b	—	—	—
Inverell	b	93 60		0
Kiandra	sb	70 37		0
Lismore	r	82 66		0·97
Maitland	g	92 62		0
Marsdens	b	85 68		0
Menindie	b	80 59		0
Molong	u	90 54		0
Moree	b	105 68		0·09
Moruya	b	72 58		0·02
Moss Vale	b	68 49		0
Mt. Hope	b	73 62		0
M. Vict'ria	c	75 48		0·04
Mudgee	c	80 51		0
M'rr'm'bh	b	91 57		0
M'rr'ndi	b	85 59		0
Mus'br'k	b	76 56		0
Narrabri	b	98 57		0
Newcastle	c	72 65		0
Nowra	–	—	—	—
Orange	b	79 48		0
Picton	b	74 58		0
P. M'q'rie	r	73 60		0·25
P. St'ph'n	g	82 62		1·70
Q'nbeyan	c	84 54		0
Quirindi	b	94 63		0
Singleton	b	74 65		0
Sydney	c	73 62		0·01
Tamw'rth	b	88 59		0
Taralga	b	82 52		0
Taree	g	72 63		0·20
T'nt'rfield	u	84 56		0
Wagga	d	79 44		0
Walcha	b	82 48		0
Walgett	b	99 63		0
W'tnw'rth	b	82 53		0
Wilcannia	–	—	—	—
W'll'ng'ng	c	76	—	0·03
Young	b	95 52		0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·802
Average for 28 years from Jan. 1st to Febr'y. 28th 9·112
Total Rainfall from January 1st to March 1st 3·198
Barometers corrected to 32° Fah. and Mean Sea Level





NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.. b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown. Pt. Perth, Ay, Albany, Ea, Eucla, CB Cape Borda, A. Adelaide, Re. Robe, P. Portland; M, Melbourne; W P. Wilson's Promontory; Go. Gabo; E. Eden; Ma. Moruya; CG. Jervis Bay, Wg, Wollongong, S, Sydney, N. Newcastle, PM Port Macquarie; C. Clarence River; B, Brisbane; R. Rockhampton; Ct. Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Cloudy, with west winds in south-western parts; fine, with southerly winds in north-west; barometers nearly steady, and sea smooth.

South Australia.—Generally fine and pleasant, with light N.E. and N. winds on coast; in central and northern territories S.E. winds and calm, with fine weather. No rain reported.

Victoria.—Generally fine, with easterly winds, rising barometers and smooth sea; misty at Cape Otway; no rain.

Tasmania.—On north coast at Low Heads fine, with N.N.E.; at Circular Head, S.W. wind; on east coast, fine, but hazy, with west and north-west winds.

New Zealand.—At Russell, barometer 30·0, and light rain; at Wellington, barometer 29·8, with light rain; at Bluff, barometer 29·9, with passing showers. Winds from south-west generally, and rather strong at Bluff.

New South Wales.—On coast cloudy north of Sydney, with south and east winds; inland, fine generally with easterly winds. Barometer risen generally and sea smooth. Extra stations:—Morangarill, max. 85, min. 58, fine and clear; Bundarra, max. 90, min. 56, south wind and fine weather; Bateman's Bay, temperature 65 degrees, wind S.E., fine, and smooth sea. For further particulars see map.

Queensland.—On coast cloudy in southern parts, with S.E. winds and rough sea at Cape Moreton; fine, with S.E. wind and calm in N.E. Rainfall at Brisbane 0·25, at Rockhampton 0·23, at Townsville 0·15.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.S.W., 13, fine, temperature 71°; Cape Otway, E., 8, fine but misty, moderate sea, temperature 65°; Portland, E.S.E., 23, fine, smooth sea, temperature 67°; Wilson's Promontory, N.E., 13, fine, smooth sea, temperature 73°; Lake Entrance, S.S.E., 13, fine, smooth sea, temperature 68.

New South Wales.—Cape St. George, S.E., 14, cloudy, moderate sea, temperature 71°; Clarence River, S., 42, like rain, moderate sea, temperature 70°; Deniliquin, calm, fine, temperature 72°; Dubbo, calm, fine, temperature 77°; Eden, N.E., 14, fine, smooth sea, temperature 68°; Goulburn, calm, fine, temperature 69°; Moruya, N.E., 28, fine, smooth sea, temperature 71°; Newcastle, S.E., 14, fine, moderate sea, temperature 72°; Port Macquarie, S.E., 14, unsettled, smooth sea, temperature 78; Sydney, E.N.E., 8, fine, but cloudy, smooth sea, temperature 70°; Wentworth, N., 14, fine, temperature 75°; Bateman's Bay, E., 42, fine, smooth sea, temperature 68; Walgett, E.S.E., fine, temperature 86°.

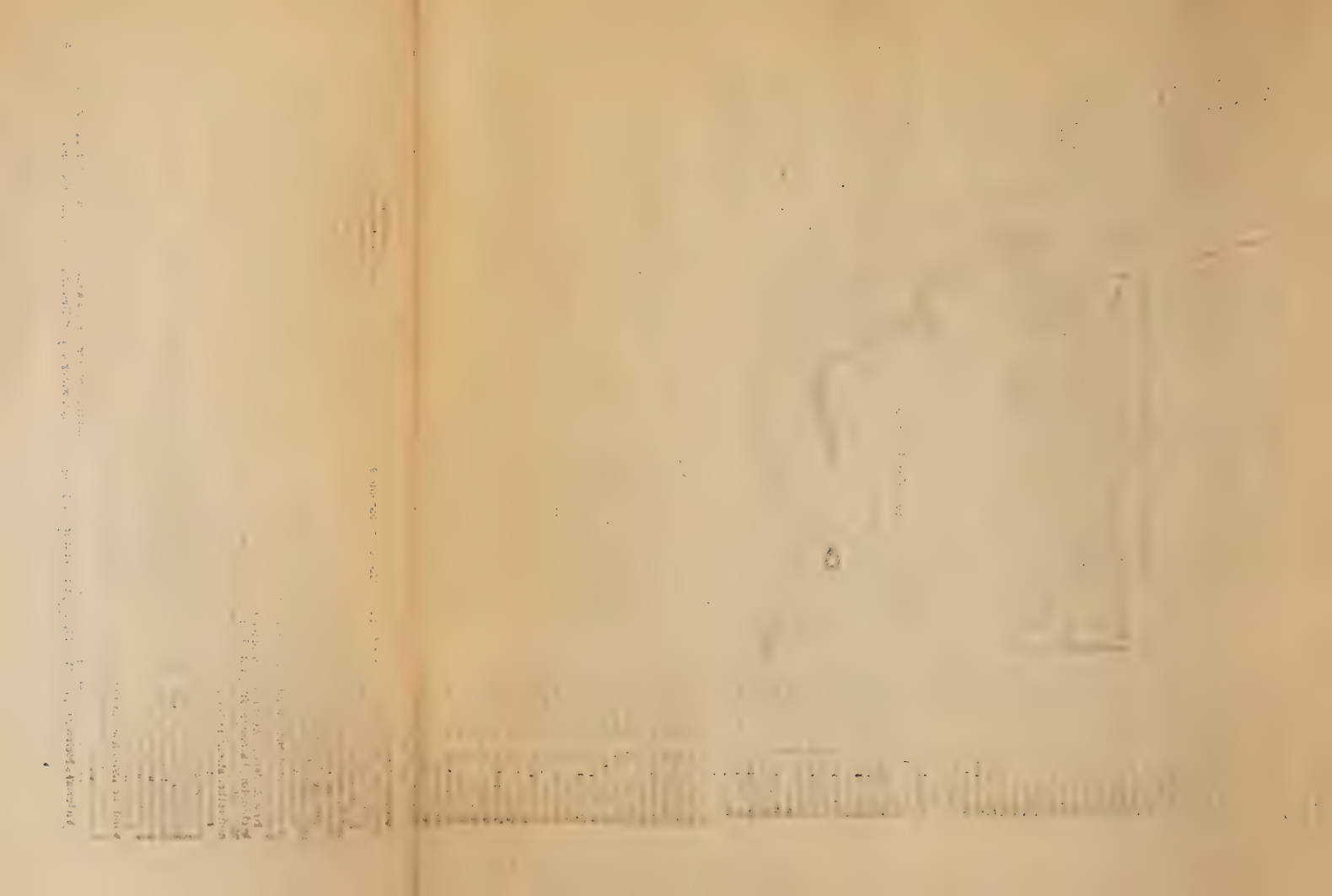
STATE OF RIVERS.

Murrumbidgee: At Wagga, 5 inches above summer level; at Hay, summer level; at Balranald, 1 inch below summer level. Darling: At Wentworth, 2 feet 10 inches above summer level; at Menindie, low.

ASTRONOMICAL MEMORANDA FOR MARCH 2.

Sun rises at 5.50, sets at 6.34; Moon rises at 2·35 a.m., sets at 4·5 p.m.; Mercury, 6.6 a.m., 6.51 p.m.; Venus, 4.34 a.m., 5.3 p.m.; Mars, 7.6 p.m., 6.23 a.m.; Jupiter, 7.33 p.m., 7.36 a.m.; Saturn, 2.30 p.m., 12.22 a.m. New moon 6th, full moon 20th.

High water at Fort Denison: 5·40 a.m., 6·12 p.m.

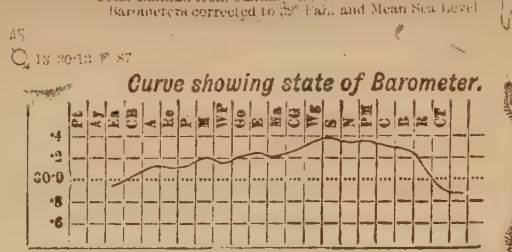


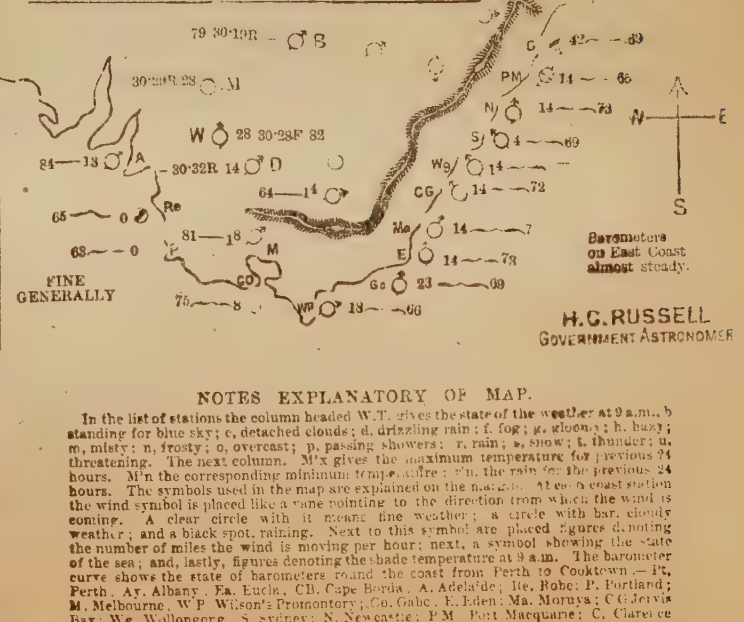
METEOROLOGICAL REPORTS AND MAP FOR MARCH 2, 1886.

Stations	wt	Mx	Mn	R	in
Albury	b	88	55		0
Armidale	u	67	51		0
Balranald	b	110	51		0
Bathurst	b	79	46		0
Bend'm'r	u	80	52		0
Bodalla ..	b	77	—		0
Bourke ..	b	97	62		0
C'md'n H.	u	73	—		0
C.St.Geo.	b	77	56		0
Carcoar ..	b	72	53		0
Casino ..	b	80	61		0·05
Cassilis ..	b	75	56		0
Clarence	c	93	66		0·24
C'nd'b'lin	b	85	51		0
Cooma ..	b	89	41		0
Coonab'n	b	85	49		0
C'nam ble	b	85	59		0
Cowra ..	b	95	2		0
Deniliq'n	b	97	56		0
Dubbo ..	b	90	53		0
Eden	b	72	—		0
Euston ..	b	103	55		0
Forbes ..	b	87	53		0
Gl'n Inn's	g	79	56		0
Goulburn	b	82	44		0
Grafton ..	u	83	65		0·07
Gulgong	b	78	53		0
Gunned'h	b	88	62		0
Hay	b	94	63		0
Hill End	b	—	—		0
Inverell ..	b	79	52		0
Kiandra	b	77	33		0
Lismore	c	77	65		0·14
Maitland	b	80	56		0
Marsdens	b	88	66		0
Menindie	b	92	67		0
Molong ..	u	83	51		0
Moree ..	b	96	63		0
Moruya ..	b	73	55		0
Moss Vale	b	70	50		0
Mt. Hope	b	83	68		0
M. Vict'ria	b	70	46		0
Mudgee ..	b	88	50		0
M'rr'm'bh	–	—	—		—
M'rr'ndi	b	76	55		0
Mus'b'rk	b	86	56		0
Narrabri	h	77	56		0
Newcastle	b	76	66		0
Nowra ..	–	—	—		—
Orange ..	b	74	48		0
Picton ..	b	73	47		0
P. M'q'rie	c	76	60		0·13
P. St'ph'n	b	79	57		0
Q'nbeyan	b	75	54		0
Quirindi	b	97	63		0
Singleton	b	70	61		0
Sydney ..	b	71	59		0
Tamw'rth	b	82	53		0
Taralga ..	b	81	45		0
Taree	b	77	63		0·01
T'nt'rfield	b	74	56		0
Wagga ..	b	76	54		0
Walcha ..	c	64	51		0
Walgett ..	b	89	65		0
W'ntw'rth	b	97	63		0
Wilcannia	b	—	—		0
W'll'ng'ng	b	76	—		0
Young ..	b	90	54		0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S. ; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....40·862
Average for 28 years from Jan. 1st to Febr'y 28th 2·712
Total Rainfall from January 1st to March 2nd 3·498
Barometers corrected to 32° Fah. and Mean Sea Level





NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rainfall for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown.—Pt. Perth, Ay. Albany, Ea. Eucla, CB. Cape Borda, A. Adelaide; Ec. Robe; P. Portland; M. Melbourne, WP. Wilson's Promontory; Co. Gabo; E. Eden; Ma. Moruya; C. Jervis Bay; Wg. Wollongong, S. Sydney; N. Newcastle; PM. Port Macquarie; C. Clarence River; B. Brisbane; R. Rockhampton; Ct. Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—No telegram.

South Australia.—Generally fine and warm, with scattered clouds; N.E. to N. winds at from 23 to 34 miles per hour; barometers fallen about one-tenth on coast, and sea smooth. Rainfall at Daly Waters, 0·22.

Victoria.—Generally fine, with light N. and N.E. winds; barometers fallen slightly and sea smooth; hazy at Cape Otway and at Wilson's Promontory. No rain reported.

Tasmania.—At Low Head, S.S.E. wind and fine weather; at Hobart, north wind with cloudy and hazy weather; at Southport, calm and fine; temperature at 9 a.m., generally from 60 to 66 degrees.

New Zealand.—Generally fine, with winds from S.W. to N.W., rather strong at Bluff; barometers, 30· at extreme south, 30·2 north; sea rough on west coast.

New South Wales.—Generally fine, with light winds from N.E. and N.W.; barometers on coast almost steady, and smooth sea. **Extra stations:** Bundarra, max. 81, min. 57, fine and calm; Morangarill, max. 84, min. 57, N.E. wind, fine and clear. For further particulars see map.

Queensland.—Generally fine, but cloudy, with S.E. wind and calm; rough sea at Cape Moreton; moderately smooth at Townsville. Rainfall: Cooktown 1·30, Townsville 0·25, Brisbane 0·02, Rockhampton 0·01.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N.N.E., 13, cloudy, temperature 86°; Cape Otway, N.W., 8, gloomy and hazy, smooth sea, temperature 94°; Lake Entrance, S.E., 18, fine but cloudy, smooth sea, temperature 72°; Portland, S.E., 13, sultry and hazy, smooth sea, temperature 78°; Wilson's Promontory, N.E., 23, fine, but cloudy and hazy, smooth sea, temperature 75°.

New South Wales.—Cape St. George, N.N.E., 14, fine, smooth sea, temperature 74°; Deniliquin, calm, fine, temperature 75°; Dubbo, W., 14, fine, temperature 78°; Goulburn, E.N.E., 14, fine, temperature 71°; Moruya, N.E., 42, fine, smooth sea, temperature 75°; Newcastle, E., 28, fine, smooth sea, temperature 74°; Port Macquarie, S.E., 14, fine, smooth sea, temperature 80°; Sydney, E.N.E., 18, fine and hazy, smooth sea, temperature 73°; Wentworth, N., 14, hazy and hot, temperature 85°; Batceman's Bay, N.E., 42, fine, smooth sea, temperature 75°; Walgett, E.N.E., fine, temperature 98°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 5 inches above summer level; at Hay, below summer level; at Balranald, 1 foot above summer level. Murray: At Albury, 9 inches above summer level; at Euston, 3 feet 3 inches above summer level. Darling: At Wentworth, 2 feet 4 inches above summer level; at Pooncarie, low; at Menindie, 1 foot above summer level; at Wilcannia, 1 foot 3 inches above summer level; at Bourke, 2 feet 2 inches above summer level.

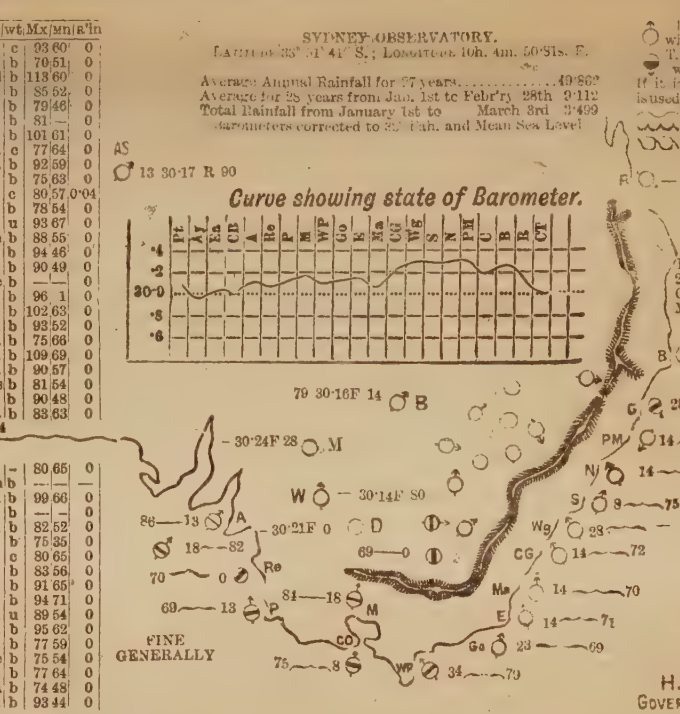
ASTRONOMICAL MEMORANDA FOR MARCH 3.

Sun rises at 5.51, sets at 6.33; Moon rises at 3·27 a.m., sets at 4·45 p.m.; Mercury, 6.12 a.m., 6.52 p.m.; Venus, 4.29 a.m., 5.5 p.m.; Mars, 7.6 p.m., 6.22 a.m.; Jupiter, 7.29 p.m., 7.31 a.m.; Saturn, 2.26 p.m., 12.18 a.m. New moon 6th, full moon 20th.

High water at Fort Denison: 6·36 a.m., 7 p.m.

METEOROLOGICAL REPORTS AND MAP FOR MARCH 3, 1886.

Stations	wt.	Mx.	Mn.	R'fall
Albury	c	93	60	0
Adelaide	b	70	51	0
Balranald	b	113	60	0
Bathurst	b	85	52	0
Bend'm'r	b	79	46	0
Bodalla ..	b	81	—	0
Bourke ..	b	101	61	0
C'md'n H.	c	77	64	0
C. St. Geo.	b	92	59	0
Carcoar..	b	75	63	0
Casino ..	c	80	57	0·04
Cassilis ..	b	78	54	0
Clarence	u	93	67	0
C'nd'b'lin	b	88	55	0
Cooma ..	b	94	46	0
Coonab'n	b	90	49	0
C'nam ble	b	—	—	0
Cowra ..	b	96	1	0
Deniliq'n	b	102	63	0
Dubbo ..	b	93	52	0
Eden	b	75	66	0
Euston ..	b	109	69	0
Forbes ..	b	90	57	0
Gl'n Inn's	b	81	54	0
Goulburn	b	90	48	0
Grafton..	b	83	63	0
Ea.				
Gulgong	–	80	65	0
Gunned'h	b	—	—	—
Hay	b	99	66	0
Hill End	b	—	—	0
Inverell..	b	82	52	0
Kiandra	b	75	35	0
Lismore	c	80	65	0
Maitland	b	83	56	0
Marsdens	b	91	65	0
Menindie	b	94	71	0
Molong ..	u	89	54	0
Moree ..	b	95	62	0
Moruya..	b	77	59	0
Moss Vale	b	75	54	0
Mt. Hope	b	77	64	0
M. Vict'ria	b	74	48	0
Mudgee..	b	93	44	0
M'rr'm'bh	b	92	57	0
M'rr'r'ndi	b	80	63	0
Mus'br'k	b	89	52	0
Narrabri	b	90	53	0
Newcastle	b	80	64	0
Nowra ..	–	—	—	—
Orange ..	b	77	49	0
Picton ..	b	82	50	0
P. M'q'rie	b	78	60	0
P. St'ph'n	b	82	58	0
Q'nbeyan	b	81	60	0
Quirindi	b	99	63	0
Singleton	b	82	70	0
SYDNEY ..	b	76	61	0
Tamw'rth	b	86	53	0
Taralga ..	b	83	50	0
Taree	b	81	61	0
T'nt'rfield	b	71	55	0
Wagga ..	g	75	54	0
Walcha ..	o	69	47	0
Walgett..	b	91	66	0
W'ntw'rth	b	103	47	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	81	—	0
Young ..	b	91	55	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.. b standing for blue sky; c, detached clouds; d, drizzling rain: f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla, CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—March 2nd, generally fine, with fresh winds from S.E. to S.W., and smooth sea. Rainfall: Perth, 0·06. On the 3rd, southerly winds on west coast, W. and N. winds on south coast, rough sea at Carnarvon, off the Gascoygne River, and at Albany.

South Australia.—Generally gloomy, cloudy, and sultry on the coast, with light northerly winds, and slightly fallen barometers; inland, light winds from N.E.; and the Northern Territory, from S.E.; sea smooth, and rainfall at Port Darwin 1·03.

Victoria.—Cloudy, hazy, and sultry, with northerly winds on coast; fierce squalls at Wilson's Promontory; sea smooth, and no rain; inland, fine, with N.E. winds.

Tasmania.—On north coast, fine, but cloudy, with E. and S.E. winds; fine, but cloudy and hazy, on east coast, with N. wind and calm. Temperature at 9 a.m., from 63 to 67 degrees.

New Zealand.—Generally fine, with light W. wind and calm, and barometers 30·3.

New South Wales.—Generally fine, with northerly winds, slightly fallen barometers, and smooth sea. Extra stations: Bundarra, max. 85, min. 54, fine and warm weather; Morangarell, max. 81, min. 57, S.W. wind, and fine weather. For further particulars see map.

Queensland.—Generally fine, with S.E. wind and rough sea at Cape Moreton; moderate further north. Rainfall: At Cooktown, 0·32; at Brisbane, 0·01.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N.N.E., 13, cloudy and sultry, temperature 85°; Cape Otway, N., fine and hazy, smooth sea, temperature 94°; Lake Entrance, W., 8, gloomy, sultry, smooth sea, temperature 81°; Portland, calm, cloudy and sultry, smooth sea, temperature 77°; Wilson's Promontory, N.W., 34, fine but sultry, smooth sea, temperature 87°.

New South Wales.—Cape St. George, N. 42, moderate sea, temperature 76°; Clarence River, S.E., 14, fine, moderately strong sea, temperature 78°; Deniliquin, calm, fine and hot, temperature 94°; Dubbo, fine and hot, temperature 81°; Eden, N.E., 14, fine, smooth sea, temperature 73°; Goulburn, N.W., 14, fine, temperature 76°; Menindie, calm, cloudy, temperature 87°; Moruya, N.E., 42, fine, hot, hazy, smooth sea, temperature 76°; Newcastle, N.E., 28, fine, smooth sea, temperature 75°; Port Macquarie, N.E., 28, fine, smooth sea, temperature 81°; Sydney, N.E., 18, fine but cloudy, smooth sea, temperature 73°; Wentworth, N., 28, hazy and hot, temperature 97°; Bateman's Bay, N.E., 28, fine and hot, smooth sea, temperature 76°; Walgett, E.S.E., fine and clear, temperature 86°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 5 inches above summer level; at Hay, summer level; at Balranald, 1 foot 4 inches below summer level. Murray: At Albury, 9 inches above summer level; at Euston, 3 feet above summer level. Darling: At Wentworth, 2 feet 8 inches above summer level; at Pooncarie, low; at Menindie, 1 foot above summer level; at Wilcannia, 1 foot above summer level; at Bourke, 2 feet above summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 4.

Sun rises at 5.52, sets at 6.32; Moon rises at 4.19 a.m., sets at 5·23 p.m.; Mercury, 6.17 a.m., 6.52 p.m.; Venus, 4.23 a.m., 3 p.m.; Mars, 6.51 p.m., 6.6 a.m.; Jupiter, 7.24 p.m., 7.[illegible] a.m.; Saturn, 2.22 p.m., 12.14 a.m. New moon 6th, full moon 20th.

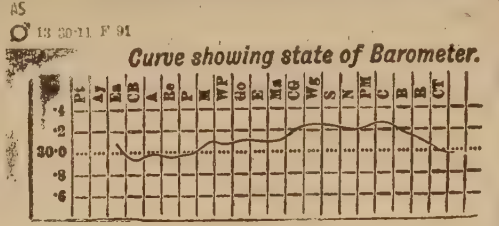
High water at Fort Denison: 7·21 a.m., 7·41 p.m.

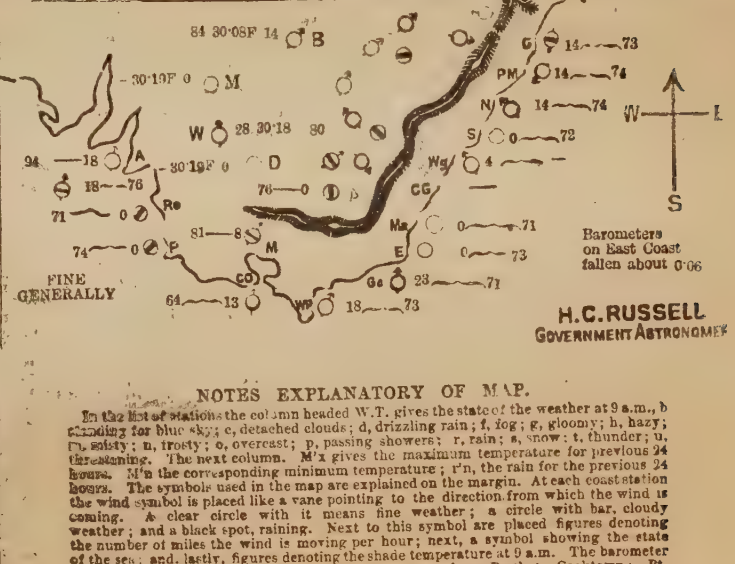
METEOROLOGICAL REPORTS AND MAP FOR MARCH 4, 1886.

Stations	wt	Mx	Mn	r'in
Albury	c	96	68	0
Armidale	b	72	51	0
Balranald	b	118	55	0
Bathurst	b	89	54	0
Bend'm'r	b	82	49	0
Bodalla ..	b	88	—	0
Bourke ..	b	103	60	0
C'md'n H.	b	81	66	0
C. St. Geo.	-	—	—	—
Carcoar ..	b	78	62	0
Casino ..	u	82	56	0·03
Cassilis ..	b	83	76	0
Clarence	c	91	68	0
C'nd'b'lin	b	92	55	0
Cooma ..	b	87	48	0
Coonab'n	h	91	49	0
C'namble	b	—	—	0
Cowra ..	b	91	63	0
Deniliq'n	b	107	66	0
Dubbo ..	b	97	61	0
Eden	-	—	—	—
Euston ..	-	—	—	—
Forbes ..	b	96	55	0
Gl'n Inn's	b	85	53	0
Goulburn	b	92	51	0
Grafton ..	b	83	65	0
Gulgong	c	82	67	0
Gunned'h	-	—	—	—
Hay	c	103	71	0
Hill End	b	—	—	0
Inverell ..	b	83	57	0
Kiandra	b	75	47	0
Lismore	b	83	66	0·04
Maitland	c	84	58	0
Marsdens	b	96	70	0
Menindie	b	97	71	0
Molong ..	u	96	53	0
Moree ..	b	97	64	0
Moruya ..	h	81	60	0
Moss Vale	b	80	57	0
Mt. Hope	b	88	76	0
M. Vict'ria	b	81	51	0
Mudgee ..	c	96	51	0
M'rr'm'bh	c	93	62	0
M'rr'ndi	b	88	59	0
Mus'br'k	b	90	55	0
Narrabri	b	90	58	0
Newcastle	b	81	68	0
Nowra ..	-	—	—	—
Orange ..	b	81	53	0
Picton ..	-	—	—	—
P. M'q'rie	b	81	61	0
P. St'ph'n	b	81	60	0
Q'nbeyan	b	81	53	0
Quirindi	b	95	67	0
Singleton	b	80	62	0
SYDNEY ..	c	78	62	0
Tamw'rth	b	87	61	0
Taralga ..	b	99	37	0
Taree	c	77	54	0
T'nt'rfield	b	82	62	0
Wagga ..	g	83	61	0
Walcha ..	b	74	51	0
Walgett ..	b	91	64	0
W'ntw'rth	b	106	70	0
Wilcannia	b	—	—	0
Wil'g'ng	b	99	—	0
Young ..	b	101	60	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4 m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 28 years from Jan. 1st to Febry 28th 9·112
Total Rainfall from January 1st to March 4th 3·499
Barometers corrected to 32° Fah. and Mean Sea Level





H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Es, Eucla, CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W.P. Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C, Clarence River; S, Sydney; N, Newcastle; P.M. Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Generally cloudy, gloomy, sultry, and threatening rain, with fresh north winds, slightly fallen barometers, and smooth sea on the coast; N. and N.E. winds and fine weather inland; fine, with S.E. winds and calm, in the Northern Territory. Rainfall: Daly Waters, 0·39.

Victoria.—Fine, but sultry, with N. and N.E. winds on coast; hot wind blowing at Cape Otway; sea smooth and barometers fallen one-tenth inland; fine, but cloudy, with north winds and calm. No rain reported.

Tasmania.—On north coast, fine, but cloudy, with fresh E. and S.E. winds; barometer at Low Head, 30·21; rough sea at Circular Heads; on east coast, fine, but hazy and sultry, with fresh winds from N.E. and N.W. Temperatures at 9 a.m., from 66 to 70 degrees.

New Zealand.—Generally fine, with variable winds; barometer fallen one-tenth at Wellington; steady at 30·3 at extreme north and south of colony.

New South Wales.—Generally fine, with northerly winds and calms, slightly fallen barometers, and smooth sea. Extra stations: Bundara, max. 85, min. 53, S. wind, cloudy and cool; Morangarell, max. 95, min. 67, W. wind, and fine weather; Bateman's Bay, calm and fine weather, smooth sea, temperature at 9 a.m. 69°; Cape St. George, max. 77, min. 60, N.W. wind, fine weather, and smooth sea; Eden, max. 76, min. 64, calm and fine, and sea smooth. For further particulars see map.

Queensland.—Generally fine, with S.E. winds; gloomy at Brisbane; rough sea at Cape Moreton, and moderate elsewhere; barometer at Townsville 29·76. Rainfall: Brisbane, 0·03.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N., 12, cloudy, hot wind, temperature 97°; Cape Otway, N.N.W., hazy, hot, moderate sea, temperature 87°; Lake Entrance, S.E., 18, fine, smooth sea, temperature 78°; Portland, N., 6, fine, hot, smooth sea, temperature 81°; Wilson's Promontory, N.E., 18, cloudy, smooth sea, temperature 89°.

New South Wales.—Cape St. George, N. 42, fine, smooth sea, temperature 74°; Clarence River, S.E., 28, cloudy, smooth sea, temperature 77°; Dubbo, S.E., fine, temperature 83°; Goulburn, E., 14, fine, temperature 80°; Menindie, N.N.E., 42, fine and hot, temperature 90°; Moruya, N.E., 28, fine moderate, sea, temperature 76°; Newcastle, N.E., 14, fine, smooth sea, temperature 75°; Port Macquarie, E., fine, smooth sea, temperature 82°; Sydney, E.N.E., 18, fine and very clear, smooth sea, temperature 75°; Wentworth, N., 28, fine and hot, temperature 98°; Bateman's Bay, E., 56, fine, smooth sea, temperature 78°; Euston, calm, fine and hot, temperature 65°; Balranald, calm, fine and hot; Walgett, S.E., fine, temperature 86°.

STATE OF RIVERS.

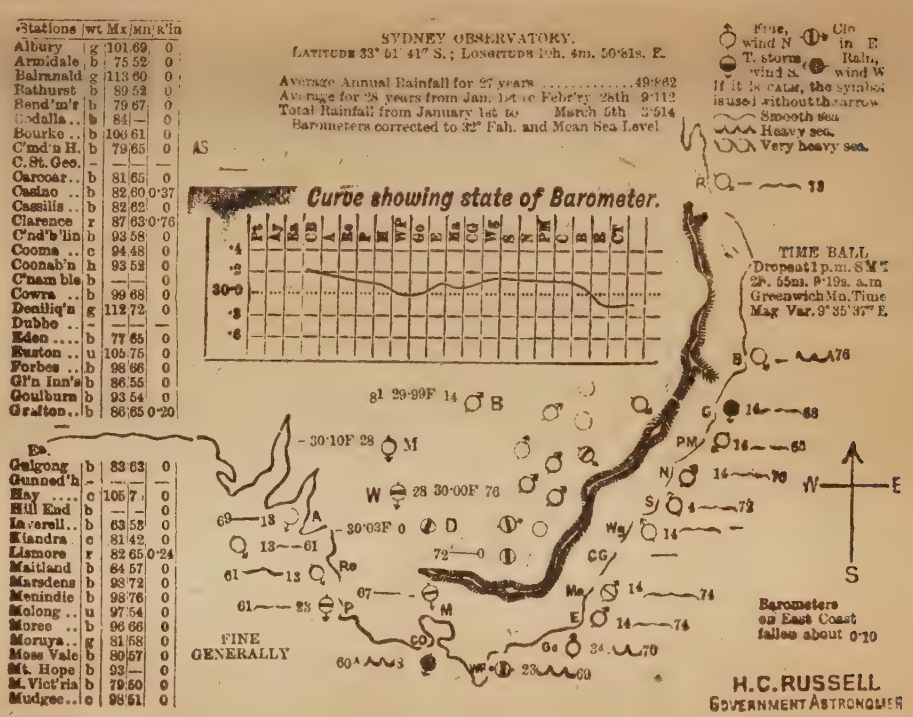
Murrumbidgee: At Wagga, 5 inches above summer level. Murray: At Albury, 6 inches above summer level. Darling: At Wentworth, 2 feet 7 inches above summer level; at Pooncarie, low; at Menindie, 1 foot above summer level; at Wilcannia, 11 inches above summer level; at Bourke, 1 foot 9 inches above summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 5.

Sun rises at 5.53, sets at 6.31; Moon rises at 5.13 a.m., sets at 5·57 p.m.; Mercury, 6.23 a.m., 6.53 p.m.; Venus, 4.18 a.m., 4.56 p.m.; Mars, 6.46 p.m., 6.0 a.m.; Jupiter, 7.20 p.m., 7.22 a.m.; Saturn, 2.18 p.m., 12.10 a.m. New moon 6th, full moon 20th.

High water at Fort Denison: 8·0 a.m., 8·18 p.m.

Stations	wt	Mx	mn	r'in
Albury	g	101	69	0
Armidale	b	75	52	0
Balranald	g	113	60	0
Bathurst	b	89	52	0
Bend'm'r	b	79	67	0
Bodalla ..	b	84	—	0
Bourke ..	b	106	61	0
C'md'n H.	b	79	65	0
C. St. Geo.	–	—	—	—
Carcoar ..	b	81	65	0
Casino ..	b	82	60	0·37
Cassilis ..	b	82	62	0
Clarence	r	87	63	0·76
C'nd'b'lin	b	93	58	0
Cooma ..	c	94	48	0
Coonab'n	h	93	52	0
C'nam ble	b	—	—	0
Cowra ..	b	99	68	0
Deniliq'n	g	112	72	0
Dubbo ..	–	—	—	—
Eden	b	77	65	0
Euston ..	u	105	75	0
Forbes ..	b	98	66	0
Gl'n Inn's	b	86	55	0
Goulburn	b	93	54	0
Grafton..	b	86	65	0·20
Gulgong	b	83	63	0
Gunned'h	–	—	—	—
Hay	c	105	7	0
Hill End	b	—	—	0
Inverell..	b	63	58	0
Kiandra	c	81	42	0
Lismore	r	82	65	0·24
Maitland	b	64	57	0
Marsdens	b	93	72	0
Menindie	b	98	76	0
Molong ..	u	97	54	0
Moree ..	b	96	66	0
Moruya ..	g	81	58	0
Moss Vale	b	80	57	0
Mt. Hope	b	93	—	0
M. Vict'ria	b	79	50	0
Mudgee...	c	98	51	0
M'rr'm'bh	b	99	42	0
M'rr'ndi	b	81	58	0
Mus'br'k	b	90	55	0
Narrabri	b	90	55	0
Newcastle	b	79	66	0
Nowra ..	–	—	—	—
Orange ..	b	82	55	0
Picton ..	b	83	55	0
P. M'q'rie	b	79	62	0·23
P. St'ph'n	b	81	61	0
Q'nbeyan	b	87	79	0
Quirindi	b	97	66	0
Singleton	b	81	62	0
Sydney ..	b	78	63	0·01
Tamw'rth	–	—	—	—
Taralga ..	b	91	52	0
Taree	–	—	—	—
Tent'rfield	b	79	56	0
Wagga ..	c	76	55	0
Waloha ..	b	74	51	0
Walgett..	b	93	63	0
W'ntw'rth	c	106	71	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	82	—	0
Young ..	b	106	59	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.. b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar., cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Fa, Eucla, CB, Cape Borda, A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Cloudy, gloomy, and cool inland to Quorn, and east of Cape Borda, with S.W. and S. winds from 13 to 23 and 34 miles per hour. Rainfall: M'Donnell Bay, 0·04; Cape Borda, 0·02.

Victoria.—Gloomy, sultry, and threatening rain, with southerly winds generally, showery and misty, with rough sea at Cape Otway; squally with rough sea at Wilson's Promontory. Rain at Portland, 0·98.

Tasmania.—At Low Heads, light east wind, with light rain and barometer 30·01; on east coast, cloudy and gloomy generally, with light variable winds and moderately smooth sea; thick misty rain, with S.E. wind at Hobart.

New Zealand.—Generally fine, with from N.E. to S.E. winds; rather strong at Gisborne and at Russell; barometers risen to 30·7; sea rough at Gisborne.

New South Wales.—Generally fine, with clouds and threatening weather in places, and light N.E. to N.W. winds on coast, southerly winds inland; barometers generally fallen from one to to two-tenths. Sea rough at Gabo Island, smooth or moderate farther north. Light rain fallen in Clarence district during last 24 hours. Extra stations: Bundarra, max. 85, min. 54, calm and fine; Morangarell, max. 100, min. 68, S.E. wind, and dull weather; Bateman's Bay, N.E. wind, fine weather, smooth sea, temperature at 9 a.m. 68°. For further particulars see map.

Queensland.—Generally fine, with S.E. winds and fallen barometers; very low at Townsville, viz., 28·91; sea rough at Cape Moreton. Rainfall: Cape Moreton, 0·07.

3 P.M. OBSERVATIONS.

New South Wales.—Clarence River, S.E., 14, fine, moderate sea, temperature 76°; Deniliquin, calm, cloudy and threatening, temperature 84°; Dubbo, N.E., fine, temperature 81°; Goulburn, calm, fine, temperature 77°; Menindie, S., 14, cloudy and hot, temperature 90°; Moruya, N.E., 42, fine, smooth sea, temperature 74°; Newcastle, N.E., 14, fine, smooth sea, temperature 73°; Port Macquarie, E.S.E., 14, fine, smooth sea, temperature 83°; Sydney, E.N.E., 18, fine and clear, smooth sea, temperature 75°; Wentworth, S., 42, dull and cloudy, temperature 78°; Bateman's Bay, N·E., 42, fine, smooth sea, temperature 76°; Walgett, calm, fine and clear, temperature 88°.

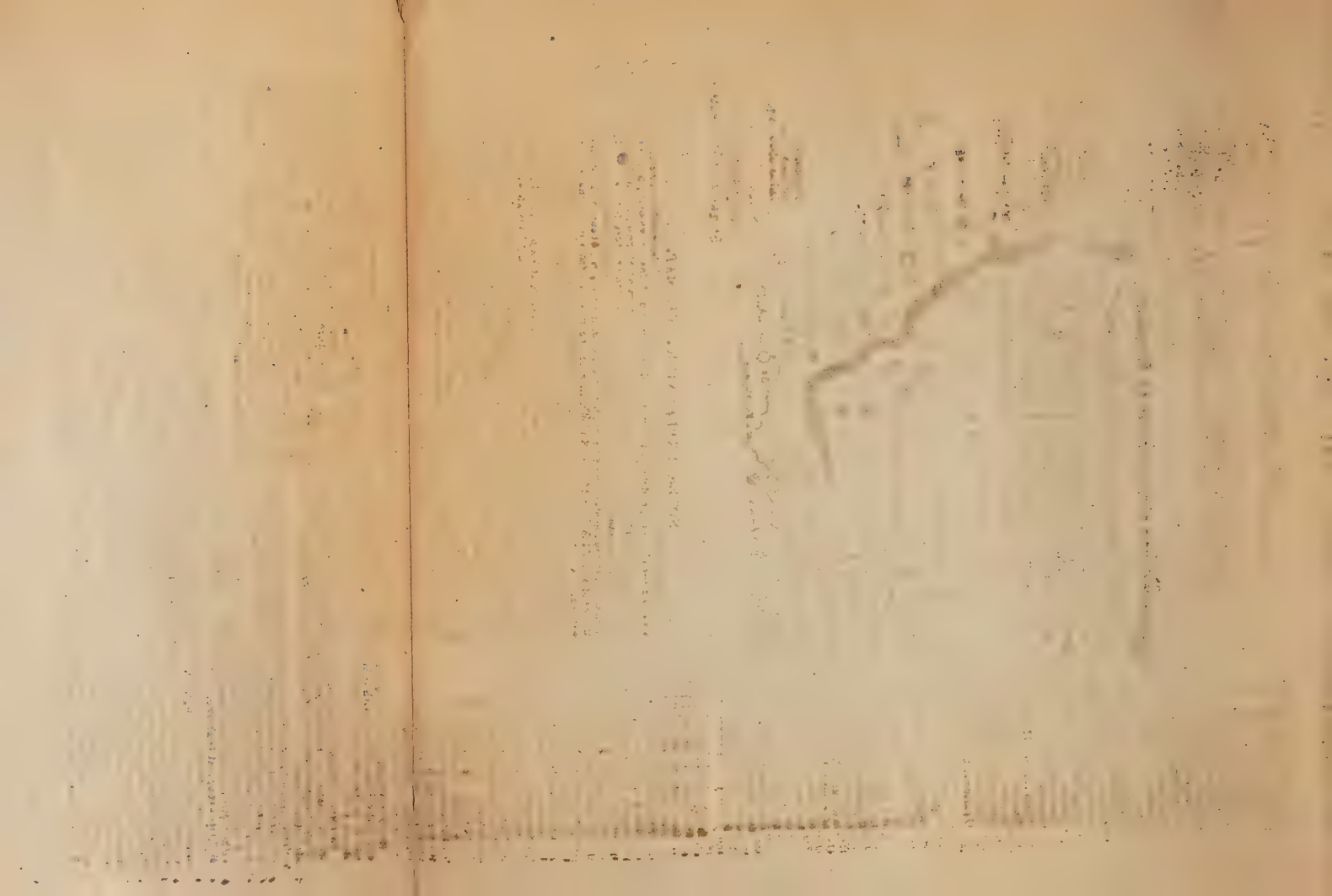
STATE OF RIVERS.

Murrumbidgee: At Wagga, 5 inches above summer level; at Hay, below summer level; at Balranald, 2 feet 6 inches above summer level. Murray: At Albury, 6 inches above summer level; at Euston, 1 foot 6 inches below summer level. Darling: At Wentworth, 2 feet 6 inches above summer level; at Poon-carie, low; at Menindie, low; at Wilcannia, 10 inches above summer level; at Bourke, 1 foot 7 inches above summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 5.

Sun rises at 5.54, sets at 6.29; Moon rises at 6.6 a.m., sets at 6·31 p.m.; Mercury, 6.28 a.m., 6.53 p.m.; Venus, 4.13 a.m., 4.52 p.m.; Mars, 6.41 p.m., 5.54 a.m.; Jupiter, 7.16 p.m., 7.17 a.m.; Saturn, 2.14 p.m., 12.6 a.m. New moon 6th, full moon 20th.

High water at Fort Denison: 8.36 a.m., 8·54 p.m.



METEOROLOGICAL REPORTS AND MAP FOR MARCH 6, 188[illegible]

Stations	wt	Mx	Mn	R'in
Albury	g	84	70	0
Armidale	b	73	53	0
Balranald	c	95	47	0
Bathurst	g	88	62	0
Bend'm'r	b	90	51	0
Bodalla ..	g	82	—	0
Bourke ..	g	108	71	0
C'md'n H.	b	80	61	0
C. St. Geo.	–	—	—	—
Carcoar ..	u	78	66	0
Casino ..	b	82	47	0
Cassilis ..	b	82	64	0
Clarence	b	85	63	0·05
C'nd'b'lin	u	93	61	0
Cooma ..	r	94	59	0·03
Coonab'n	b	93	55	0
C'nam ble	g	—	—	0
Cowra ..	u	92	70	0
Deniliq'n	r	99	54	0·08
Dubbo .	b	86	57	0
Eden	u	77	67	0
Euston ..	g	89	52	0
Forbes ..	g	96	71	0
Gl'n Inn's	b	83	54	0
Goulburn	g	94	59	0
Grafton ..	b	94	60	0
Gulgong	b	85	69	0
Gunned'h	–	—	—	—
Hay	r	9	51	0·11
Hill End	c	—	—	0
Inverell ..	b	84	55	0
Kiandra	r	74	51	0·05
Lismore	b	80	61	0·02
Maitland	b	89	60	0
Marsdens	c	91	76	0
Menindie	g	95	65	0
Molong ..	u	92	62	0
Moree, ..	b	98	67	0
Moruya ..	g	81	69	0
Moss Vale	b	78	59	0
Mt. Hope	c	81	72	0
M. Vict'ria	c	79	52	0
Mudgee ..	c	95	62	0
M'rr'm'bh	r	95	68	0
M'rr'r'ndi	b	80	59	0
Mus'br'k	b	90	58	0
Narrabri	b	92	57	0
Newcastle	b	80	65	0
Nowra ..	–	—	—	—
Orange ..	c	81	62	0
Picton ..	b	84	59	0
P. M'q'rie	b	80	58	0
P. St'ph'n	b	81	59	0
Q'nbeyan	b	87	61	0
Quirindi	b	101	60	0
Singleton	b	85	65	0
Sydney ..	b	80	64	0
Tamw'rth	–	—	—	—
Taralga ..	–	—	—	—
Taree	b	84	59	0
Tat'rfield	b	77	49	0
Wagga ..	d	74	63	0
Walcha ..	f	75	52	0
Walgett ..	b	93	62	0
W'ntw'rth	b	84	55	0·01
Wilcannia	–	—	—	—
Willing'ng	b	84	—	0
Young ..	r	99	60	0·07

SYDNEY OBSERVATORY.
LATITUDE 33° 51' 41" S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 28 years from Jan. 1st to Febr'ry 28th 9·112
Total Rainfall from January 1st to March 6th 3·514
Barometers corrected to 32° Fah. and Mean Sea Level

Fine, wind N. Clo in E. T. storm, wind S. Rain, wind W. If it is CALM, the symbol is used without the arrow. Smooth sea. Heavy sea. Very heavy sea.

Curve showing state of Barometer.

Pe, Ap, Ea, CB, A, Re, P, M, WP, Go, E, Ma, CG, WE, S, N, PM, C, B, R, CT

30·4, 30·3, 30·2, 30·1, 30·0, ·9, ·8, ·7, ·6

TIME BALL
Drops at 1 p.m. S.M.T.
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35' 37" E

Barometers on East Coast fallen about 0·10

FINE GENERALLY

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n. the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth Ay, Albany, Ea, Eucla, CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland, M, Melbourne, W P, Wilson's Promontory, Go, Gabo; E, Eden; Ma, Moruya; C G, Jervis Bay Wg, Wollongong, S, Sydney, N, Newcastle; P M, Port Macquarie; C, Clarence River, B, Brisbane; R, Rockhampton; Ct Cooktown. Inland the state of barometer is given by figures at Albury Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

H. C. RUSSELL
GOVERNMENT ASTRONOMER

Western Australia.—At Esperance Bay, barometer 30·33, thermometer 54°; north wind, heavy dew last night, fine weather and very smooth sea.

South Australia.—Generally fine, with scattered clouds, and fresh south and south-west winds; barometers risen slightly, and sea smooth on coast. Rainfall at Port Darwin, 0·80.

Victoria.—Generally cloudy and raining, with fresh south and west winds, and slightly fallen barometer; misty and rough sea at Cape Otway; squally, misty, and showery at Wilson's Promontory; passing showers and misty at Lake Entrance; thunderstorm and showery at Melbourne. Rainfall—Wilson's Promontory, 0·26; Melbourne, 0·41; Lake Entrance, 0·07; Cape Otway, 0·03; Echuca, 0·23; Horsham, 0·02. Portland reports:—Barometer 30·06, thermometer 61°; fresh S.W. wind and fine weather; light rain at Echuca.

Tasmania.—Generally raining, with fresh S.E. and S.W. winds; misty rain and rough sea at Southport; thick misty rain and rain of yesterday measuring 0·72 at Hobart; misty and rain, barometer 29·91, and rain of yesterday 0·42 at Low Heads. Temperature at 9 a.m. ranging from 52° in south to 56° in north.

New Zealand.—At Russell strong S.E. wind, with passing showers, and barometer at 30·2; at Bluff and Wellington, fine, with calm and S.E. winds, and barometers at 30·3 and 30·2 respectively.

Queensland.—Generally fine, with S.E. and S.W. winds, and moderately smooth sea north of Brisbane. Rainfall at Cooktown, 0·92; Cape Moreton, no reports.

New South Wales.—Generally unsettled weather, with rain in places in country; winds light and variable and sea smooth; barometer fallen from one to two tenths, generally. Extra stations: Bundarra, max. 84°, min. 55°, fine and very warm, no wind; Morangarell, max. 90°, min. 68°, E. wind, threatening weather, and rain 0·08 Bateman's Bay, N.E. wind, cloudy weather, smooth sea, and temperature at 9 a.m. 68°. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, W.S.W., 6, misty, rough sea, temperature 58°; Portland, S.S.W., 24, fine, smooth sea, temperature 62°; Wilson's Promontory, W., 24, squally, with rain, rough sea, temperature 56°.

New South Wales.—Clarence River, N.E., 10, fine, moderate sea, temperature 78°; Deniliquin, S.W., cloudy, like rain, temperature 76°; Eden, N.E., 14, cloudy, little sea, temperature 70°; Goulburn, calm, cloudy, temperature 72°; Menindie, S.W., 28, fine, cool, temperature 74°; Moruya, N.E., 29, like rain, moderate sea, temperature 68°; Newcastle, N.E., 20, fine, smooth sea, temperature 75°; Port Macquarie, N.E., 28, fine, moderate sea, temperature 80°; Sydney, N., 15, cloudy, smooth sea; Wentworth, S., fine clear, temperature 67; Walgett, S.W., like a change, temperature 93°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 5 inches above summer level; at Balranald, 1 feet 10 inches above summer level. Murray: At Albury, 5 inches above summer level; at Euston, 1 foot 10 inches above summer level. Darling: At Wentworth, 2 feet 4 inches above summer level; at Pooncarie, low; at Menindie, low; at Bourke, 1 foot 5 inches above summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 8.

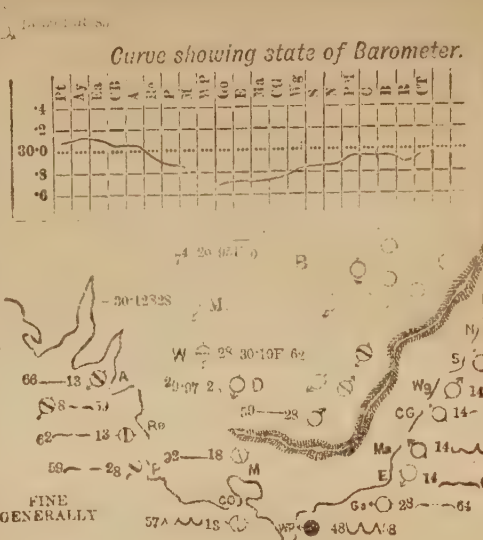
Sun rises at 5.55, sets at 6.26; Moon 7.55 a.m., 7.39 p.m.; Mercury, 6.39 a.m., 6.54 p.m.; Venus, 4.3 a.m., 4.44 p.m.; Mars, 6.30 p.m., 5.43 a.m.; Jupiter, 7.7 p.m., 7.9 a.m.; Saturn, 2.7 p.m. 11.59 p.m. New moon 6th, full moon 20th.

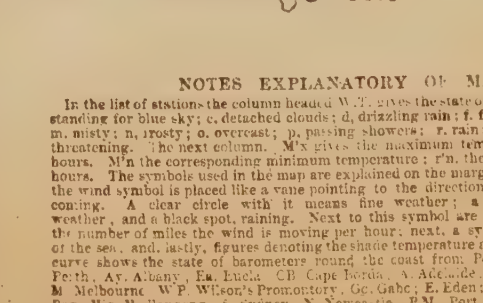
High water at Port Denison, March 8: 9.45 a.m., 10.1 p.m.

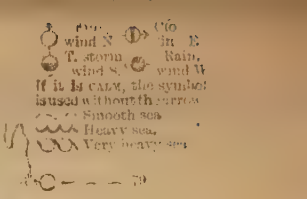
SYDNEY OBSERVATORY.
Latitude 33° 51′ 41″ S.: Longitude 0h. 4m. 50·81s. E.

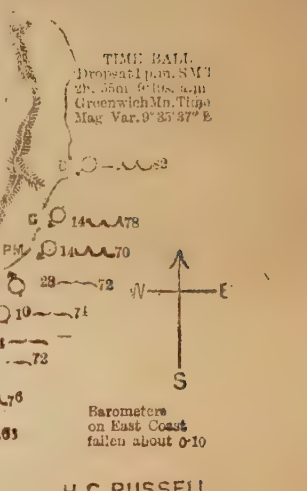
Average Annual Rainfall for 27 years ..... 49·82
Average Rainfall from Jan. 1st to February 28th 9·12
Total Rainfall from January 1st to March 8th 9·09
Barometers corrected to 32° Fah. and Mean Sea Level

Stations	wt	Mx	Mn	r/n
Albury	b	73	48	0·39
Armidale	b	84	49	0
Balranald	c	85	55	0·15
Bathurst	b	77	42	0
Bend'm'r	b	80	46	0
Bodalla ..	b	82	—	1·54
Bourke ..	b	87	52	0
C'md'n H.	b	82	60	0
C. St. Geo.	b	82	58	0·31
Carcoar ..	—	—	—	—
Casino ..	b	97	66	0
Cassilis .	b	76	53	0
Clarence	b	92	67	0
C'nd'b'lin	b	75	43	0·01
Cooma ..	b	72	52	0·26
Coonab'n	b	82	39	0
C'nam ble	b	—	—	0
Cowra ..	c	79	53	0·12
Deniliq'n	b	89	40	0·16
Dubbo ..	b	81	45	0
Eden	b	67		0
Euston ..	b	82	48	0
Forbes ..	b	72	48	0
Gl'n Inn's	b	85	44	0
Goulburn	b	69	51	0·30
Grafton ..	b	105	70	0
Gulgong	b	72	61	0
Gunned'h	b	86	51	0
Hay	b	91	41	0
Hill End	b	—	—	0
Inverell ..	b	88	45	0
Kiandra	c	58	37	1·53
Lismore	b	96	74	0
Maitland	b	88	50	0
Marsdens	b	79	55	0·08
Menindie	b	85	64	0
Molong ..	u	79	45	0
Moree ..	b	93	55	0
Moruya ..	b	7	60	0·15
Moss Vale	—	—	—	—
Mt. Hope	b	64	55	0·05
M. Vict'ria	b	74	40	0
Mudgee ..	b	90	43	0
M'rr'm'bh	c	75	55	0·43
M'rr'r'ndi	b	86	55	0
Mus'br'k	b	85	50	0·10
Narrabri	b	92	53	0
Newcastle	b	81	59	0
Nowra ..	—	—	—	—
Orange ..	b	65	43	0
Picton ..	b	77	52	0
P. M'q'rie	b	82	57	0
P. St'ph'n	b	81	53	0
Q'nbeyan	c	74	45	0·60
Quirindi	b	93	56	0
Singleton	b	87	58	0·09
Sydney ..	b	81	63	0·09
Tamw'rth	b	92	44	0
Taralga ..	b	75	47	0·10
Taree	b	87	57	0·26
T'nt'rfield	b	86	40	0
Wagga ..	b	76	43	1·00
Walcha ..	b	80	34	0·05
Walgett ..	b	81	50	0
W'ntw'rth	o	83	56	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	80	—	0
Young ..	c	82	51	0·73









NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth, Ay, Albany, Ea, Eucla, CB Cape Borda, A, Adelaide, Re, Robe, P, Portland; M Melbourne, W P, Wilson's Promontory, Gc, Gabo, E, Eden; Ma, Moruya; C G Jervis Bay, Wg, Wollongong, S, Sydney, N, Newcastle, P M Port Macquarie; C, Clarence River, B, Brisbane, R, Rockhampton; Ck, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

H. C. RUSSELL
GOVERNMENT ASTRONOMER.

Western Australia.—Generally fine, with light easterly winds and smooth sea on west coast; fine, but cloudy, with south wind and calm on south coast. Temperatures at 9 a.m. ranging from 61° in south to 81° in north. Barometers: At Esperance Bay, 30·17; Carnarvon, 29·86; Ashburton, 29·81.

South Australia.—Generally cloudy on south coast, with south and west winds and smooth sea; squally at M'Donnell Bay. Rainfall: 0·06, and at Port Lincoln, 0·04; very slight shock of earthquake at 5.45 a.m at Cape Borda. Inland and in Northern Territory, fine, with S. and S.E. winds; temperatures at 9 a.m. ranging from 85° in Central to 82° in North. Barometers at Daly Waters, 30·01; at Port Darwin, 29·87, and rainfall, 1·53.

Victoria.—Generally cloudy, with strong westerly winds on coast; showery, with fierce squalls and rough sea at Wilson's Promontory; misty, with high sea, at Cape Otway; squally at Melbourne. Inland, fine but cloudy, with west and north winds. Rainfall: Omeo, 0·91; Melbourne, 0·28; Wilson's Promontory, 0·63; Portland, 0·14; Robe, 0·09.

Tasmania.—Generally fine, with W. and S.W. winds and moderately smooth sea, heavy showers at South port, squally and unsettled at Hobart. Rainfall: South port, 0·38; Low Head, 0·08. Barometers: Low Head, 29·63; Falmouth, 29·42; Hobart, 29·37; South port, 29·45. Temperature at 9 a.m. ranging from 52° in south to 58° in north.

New Zealand.—Generally fine, with N.E. and N.W. winds and smooth sea. Barometers: Russell, 30·1; Wellington, 30·1; Bluff, 29·7.

Queensland.—Generally fine, with west and south winds and risen barometers; heavy sea at Cape Moreton, smooth farther north; barometers at Townsville, 30·03; temperature ranging at 9 a.m. from 79° to 91° at Cooktown.

New South Wales.—Generally fine, with light variable winds and fallen barometers; moderate rain fallen in places of country, and sea rough on coast. Extra stations.—Bundarra, max. 90°, min. 45, fine and calm; Morangarell, max. 72°, min. 50°, calm and fine, rain 0·44; Temora, weather dull and cloudy, rain 0·02; Bateman's Bay, W. wind, fine weather, smooth sea, temperature at 9 a.m. 67°; Bodalla reports heavy storm Sunday morning; Camden Haven, heavy sea. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, W., 18, cloudy and gloomy, temperature 63°; Cape Otway, W., 16, cloudy and misty, smooth sea, temperature 60°; Portland, W., 40, light rain, smooth sea, temperature 63°; Wilson's Promontory, W., 48, showery, rough sea, temperature 58°.

New South Wales.—Cape St. George, W., 28, fine, smooth sea, temperature 83°; Deniliquin, S.W., fine, temperature 78°; Eden, N.E., 14, fine, smooth sea, temperature 67°; Goulburn, N.W., fine, temperature 68°; Menindie, S.W., fine, temperature 72°; Moruya, S.E., 28, fine, heavy sea, temperature 72°; Newcastle, W., 14, fine, smooth sea, temperature 87°; Port Macquarie, E.N.E., 14, fine, heavy sea, temperature 81°; Sydney, N.E., 20, fine, smooth sea, temperature 79°; Wentworth, S.W., fine, temperature 67; Bateman's Bay, E., 42, fine, smooth sea, temperature 75°.

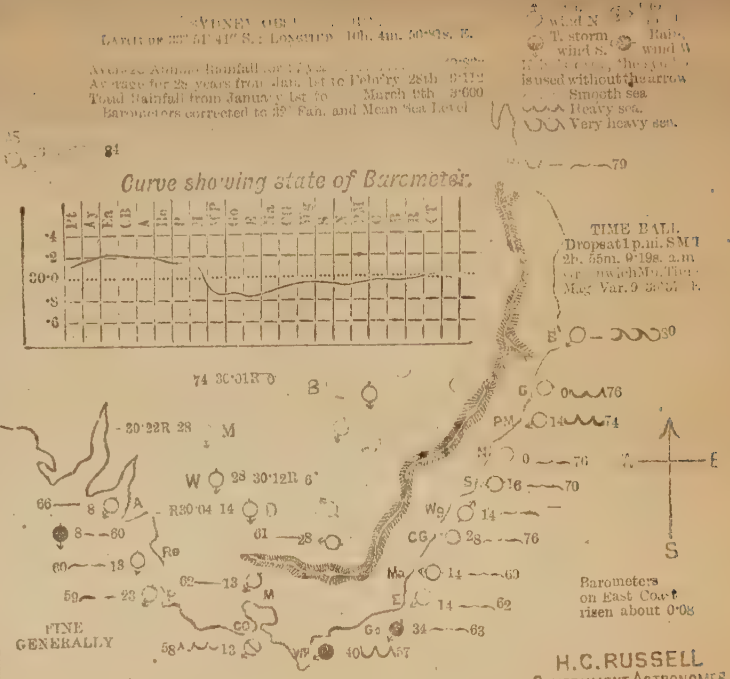
STATE OF RIVERS.

Murrumbidgee: At Wagga, 7 inches above summer level; at Hay, below summer level; at Balranald, 1 foot 10 inches above summer level. Murray: At Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 3 feet above summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, 6 inches above summer level; at Bourke, summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 9.

Sun rises at 5.56, sets at 6.25; Moon 8.51 a.m., 8·13 p.m.; Mercury, 6.44 a.m., 6.55 p.m.; Venus, 3.59 a.m., 4.41 p.m.; Mars, 6.25 p.m., 5.37 a.m.; Jupiter, 7.3 p.m., 7.4 a.m.; Saturn, 2.3 p.m. 11.55 p.m. New moon 6th, full moon 20th.
High water at Fort Denison, March 9: 10.18 a.m., 10.34 p.m.

Stations	wt	Mx	Mn	Rn
Albury	b	75	56	0
Armidale	b	83	50	0
Balranald	b	85	40	0
Bathurst	b	79	44	0
Bend'm'r	b	81	40	0
Bodalla ..	b	81	—	0
Bourke ..	b	94	58	0
C'md'n H.	b	82	65	0
C. St. Geo.	b	86	57	0
Carcoar ..	b	69	48	0
Casino ..	b	81	56	0
Cassilis ..	b	94	56	0
Clarence	b	94	67	0
C'nd'b'lin	b	79	41	0
Cooma ..	c	77	45	0
Coonab'n	b	90	48	0
C'nam ble	b	—	—	0
Cowra ..	b	83	57	0
Deniliq'n	b	80	48	0
Dubbo ..	b	87	49	0
Eden	b	72	57	0
Euston ..	b	78	64	0
Forbes ..	b	82	49	0
Gl'n Inn's	b	88	46	0
Goulburn	b	76	47	0
Grafton ..	b	101	64	0
Gulgong	b	73	63	0
Gunned'h	b	91	60	0
Hay	b	81	51	0
Hill End	b	—	—	0
Inverell ..	b	86	48	0
Kiandra	c	60	37	0
Lismore	b	84	66	0
Maitland	b	87	56	0
Marsdens	b	81	56	0
Menindie	b	78	60	0
Molong ..	b	84	49	0
Moree ..	b	94	57	0
Moruya ..	b	81	55	0
Moss Vale	—	—	—	—
Mt. Hope	b	63	56	0
M. Vict'ria	b	74	47	0
Mudgee ..	b	88	49	0
M'rr'm'bh	b	81	51	0
M'rr'ndi	b	83	54	0
Mus'lbr'k	b	93	53	0
Narrabri	b	89	51	0
Newcastle	b	82	64	0
Nowra ..	—	—	—	—
Orange ..	b	71	49	0
Picton ..	—	—	—	—
P. M'q'rie	b	80	59	0
P. St'ph'n	b	82	57	0
Q'nbeyan	b	71	53	0
Quirindi	b	97	60	0
Singleton	b	88	1	0
SYDNEY ..	b	84	62	0
Tamw'rth	b	87	48	0
Taralga ..	b	79	42	0
Taree	b	87	59	0
T'nt'rfield	b	86	43	0
Wagga ..	b	66	46	0
Walcha ..	b	79	42	0
Walgett ..	b	88	59	0
W'ntw'rth	b	83	50	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	87	—	0
Young ..	b	85	55	0



NOTES EXPLANATORY OF MAP.

In the list of stations [illegible] weather at 9 a.m. b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature, r'n, the rain for the previous 24 hours. The symbols used in the map are [illegible] the margin. At each coast station the wind symbol is placed like a vane pointing to the [illegible] from which the wind is coming. A clear circle with [illegible] means fine weather, a [illegible] with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour [illegible], a symbol showing the state of the sea, and lastly, figures [illegible] temperature [illegible] a.m. The barometer curve shows the state of barometers [illegible] the coast [illegible] Perth, A, Albany, Eu, Eucla [illegible] Cape Borda [illegible] Re, Robe, P, Portland, M, Melbourne, W P, Wilson's Promontory, Go, Gabo, E, Eden, Ma, Moruya, C J, Jervis Bay, Wg, Wollongong, S, Sydney, N, Newcastle, P M, Port Macquarie, C, Clarence River, B, Brisbane, R, Rockhampton, [illegible] Inland the state of barometer is given [illegible] at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them and southerly following.

Western Australia.—Generally fine, with light east winds and smooth sea, cloudy and gloomy at Esperance Bay, and barometer 30·24, the highest reported reading in Australia this day. Barometers: Geraldton, 30·08; Carnarvon, 29·88; Ashburton, 29·94. Temperatures at 9 a.m. ranging from 62° at Albany to 88° at Carnarvon at the mouth of the Gascoygne River. No rain reported.

South Australia.—On the coast and as far inland as the Peak generally cloudy and gloomy, with light southerly winds and smooth sea; light rain at Cape Borda. Inland and in Northern Territory generally calm, with clouds at Port Darwin. Rainfall: Port Darwin, 1·51; Cape Borda, 0·02; M'Donnell Bay, 0·04. Temperature at Port Darwin, 77. Barometer, 29·91; Daly Waters, 83° and 30·05.

Victoria.—Generally fine with W. and S.W. winds; squally, light rain and rough sea at Wilson's Promontory; squally and rough sea at Lakes Entrance; cloudy, misty, and rough sea at Cape Otway; squally at Melbourne. Rainfall: Wilson's Promontory, 0·60; Cape Otway, 0·12; Portland, 0·05. Barometer at Echuca, 30·01, temperature 62°; Omeo, 29·99 and 60°.

Tasmania.—Generally fine, with fresh westerly winds; passing showers and rough sea at Southport; threatening rain at Hobart, and barometer 29·67, the lowest of any reported in Australia this day. Barometers at Southport, 29.70; Low Heads, 29·92. Rainfall at Southport, 0·35 Temperature at 9 a.m. ranging from 53° at Hobart to 60° at Falmouth.

New Zealand.—Generally gloomy on North Island, with south wind and barometer 30·0 at Russell; north-west wind and barometer 29·9 at Wellington; fine, with west wind, and barometer 29·7 at Bluff on Middle Island.

New South Wales.—Generally fine, with S.W. and W. winds, and slightly risen barometers; sea rough on coast, no rain. Extra stations: Bundarra, max. 87°, min. 43, calm and fine; Morangarell, max. 70°, min. 50°, W. wind and fine weather; Bateman's Bay, calm, fine, and smooth sea, temperature at 9 a.m. 44°; Gabo, squally with passing showers and moderate sea. Camden Haven, rough sea. For further particulars see map.

Queensland.—Generally fine, with S.E. and S.W. winds; very high sea at Cape Moreton, smooth farther north; barometer at Townsville, 29·78; temperature at 9 a.m. ranging from 79°, at Rockhampton to 95° at Townsville.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 13, fine, temperature 64°; Cape Otway, W., 13, misty, rough sea, temperature 65°; Lakes Entrance, W.S.W., 28, squally, rough sea, temperature 58°; Portland, S.W., 23, fine, smooth sea, temperature 63°; Wilson's Promontory, W., 34, squally, rough sea, temperature 62°.

New South Wales.—Cape St. George, S.E., 14, fine, moderate sea, temperature 73°; Deniliquin, S., fine, temperature 68°; Dubbo, S., 14, fine, temperature 75°; Goulburn, N.W., fine, temperature 67°; Moruya, S.S.E., 42, fine, moderate sea, temperature 70°; Newcastle, N.E., 14, fine, smooth sea, temperature 73°; Port Macquarie, S.S.E., 28, fine, heavy sea, temperature 83°; Sydney, S.S.E., 10, fine, smooth sea, temperature 75°; Wentworth, W., fine, temperature 68; Bateman's Bay, E., 28, fine, smooth sea, temperature 71°; Walgett, S.W., fine and clear, temperature 85°.

STATE OF RIVERS.

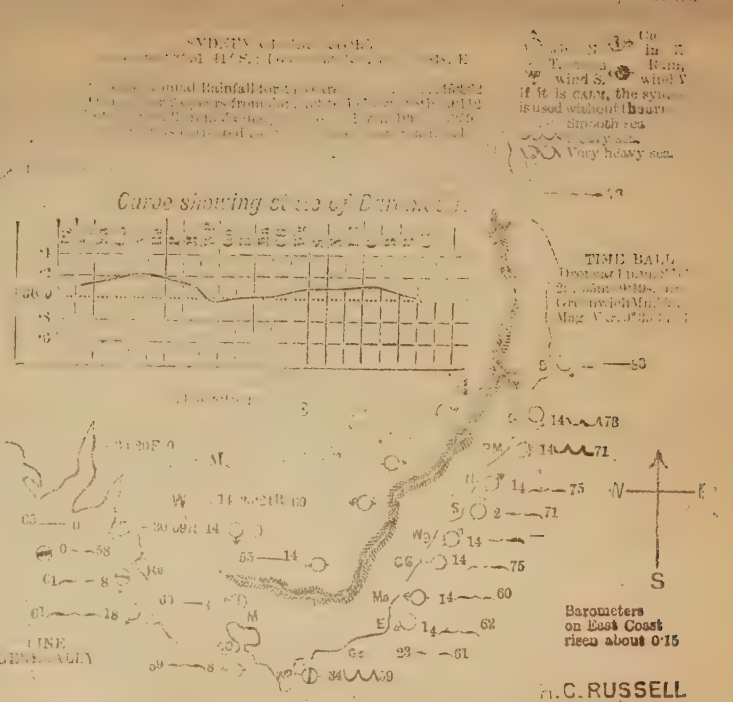
Murrumbidgee: At Wagga, 7 inches above summer level; at Hay, below summer level; at Balranald, 2 feet above summer level. Murray: At Albury, 6 inches above summer level; at Euston, 1 foot 6 inches above summer level. Darling: At Wentworth, 1 foot 10 inches above summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, 6 inches above summer level; at Bourke, summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 10.

Sun rises at 5.57, sets at 6.24; Moon 9.48 a.m., 8.50 p.m.; Mercury, 6.49 a.m., 6.55 p.m.; Venus, 3.55 a.m., 4.38 p.m.; Mars, 6.20 p.m., 5.32 a.m.; Jupiter, 6.59 p.m., 7.0 a.m.; Saturn, 1.59 p.m. 11.51 p.m. New moon 6th, full moon 20th.

High water at Fort Denison, March 10: 10.53 a.m., 11.11 p.m.

Stations.	wf	M'x	M'n	Rain
Albury	b	77	47	0
Armidale	b	84	57	0
Balranald	b	88	34	0
Bathurst	b	79	42	0
Bend'm'r	b	83	44	0
Bedalla	b	91	—	0
Bourke	b	92	58	0
C'nad'n H	c	79	38	0
C. St. Geo.	b	71	—	0
Carcoar	b	69	—	1
Casino	c	92	61	0
Cessilis	c	91	62	0
Clarence	b	93	—	—
C'nd'b'lin'	—	—	—	—
Cooma	b	78	31	0
Coomb'n	b	88	45	0
Cham'bl'n	b	—	—	0
Cowra	b	78	51	0
Deniliq'n	b	80	44	0
Dubbo	b	89	52	0
Echuca	b	76	36	0
Euston	b	84	44	0
Forbes	b	87	50	0
Gl'n Inn's	b	79	50	0
Goulburn	b	76	50	0
Grafton	c	104	71	0
Ga.				
Gulgong	b	80	59	0
Gunned'h	b	90	65	0
Hay	b	78	46	0
Hill End	b	—	—	0
Inverell	b	87	54	0
Kiandra	n	63	—	0
Lismore	b	97	69	0
Maitland	b	85	60	0
Marsdens	b	81	66	0
Menindie	b	87	58	0
Molong	b	82	47	0
Moree	b	92	58	0
Moruya	b	79	53	0
Moss Vale	b	76	51	0
Mt. Hope	b	—	—	0
M. Victoria	b	74	50	0
Mudgee	b	91	53	0
M'r'm'bh	b	79	50	0
M'r'r'ndi	b	85	57	0
Mus'br'k	b	92	53	0
Narrabri	b	90	53	0
Newcastle	b	79	68	0
Nowra	b	86	—	0
Orange	b	70	42	0
Picton	b	83	51	0
P. M'q'rie	r	81	63	0·12
P. St'ph'n	b	79	63	0
Q'nbeyan	b	73	54	0
Quirindi	b	98	63	0
Singleton	b	89	66	0
Sydney	b	81	61	0
Tamw'rth	b	88	59	0
Taralga	b	80	42	0
Taree	c	87	66	0·01
Tnt'rfield	c	86	51	0
Wagga	b	66	45	0
Walcha	b	79	43	0
Walgett	b	87	56	0
W'tnw'rth	b	78	52	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	80	—	0
Young	b	91	44	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.F. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, [illegible]; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature with the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Rc, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given by figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curves enable one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light E. and S.E. winds, smooth sea, and slightly fallen barometers. No rain reported. Barometers: Perth, 30·06; Geraldton, 30·11; Carnarvon, 29·89. Temperature at 9 a.m. ranging from 58° at Albany, to 85° at Carnarvon.

South Australia.—South Coast: Generally fine, with south winds and calm; slightly risen barometers, and smooth sea; at Cape Borda calm, cloudy, and gloomy. Inland and in Northern Territory: Generally cloudy, gloomy, and threatening rain, with S.E. winds and calm; barometer at Alice Springs risen to 30·30, being the highest reported reading in Australia to-day; Daly Waters, barometer 30·62, fallen slightly; at Port Darwin, steady at 29·91. Temperature at 9 a.m. ranging from 64° in Central, to 81° in Northern Territory. Rainfall at Alice Springs, 0·09.

Victoria.—Generally fine with W. and S.W. winds, and barometer risen one-tenth; misty and moderate sea at Cape Otway; squally, and rough sea at Wilson's Promontory; moderate sea at Lakes Entrance; cloudy at Melbourne. Inland:—Echuca: Barometer, 30·08, and temperature 62°; Omeo, 30·07 and 55°. No rain reported.

Tasmania.—Fine but cloudy, with fresh W. and S. winds on North coast, and rough sea at Circular Head; generally fine, with strong W. and S. winds, and risen barometers on E. coast; showery, rough sea, and rain measuring 0·23 at Southport; strong S.W. wind in squalls at Hobart; moderate sea at Falmouth. Temperature at 9 a.m. ranging from 58° at Southport, to 63° at Falmouth.

New Zealand.—Gloomy with N.W. wind and calm, and fallen barometer at North Island; showery with fresh wind and barometer fallen to 29·50, being the lowest reported reading in Australia to-day; passing showers and rough sea on West Coast.

New South Wales.—Generally fine, with light variable winds and calm, and risen barometers; heavy sea, with easterly winds north of Newcastle, moderately smooth with westerly winds farther south. Tamworth reports.—Violent westerly wind early this morning. Camden Haven: Sea continuing rough. Extra stations: Bundarra, max. 88°, min. 49, calm and fine and very hot. Morangarell, max. 68°, min. 28°, S.W. wind fine and clear weather. Bateman's Bay, S.W. wind, fine weather, smooth sea, and temperature 63°. For further particulars see map.

Queensland.—Generally fine, with S. and S.E. winds, and calm and smooth sea; barometers steady, except at Townsville, where it has fallen to 29·71; temperature at 9 a.m., ranging from 79° at Rockhampton to 91° at Cooktown; no rain.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.S.W., 23, fine, temperature 69°; Cape Otway, W., 8, fine and misty, and moderate sea, temperature 67°; Lakes Entrance, S.W., 23, fine, moderate sea, temperature 68°; Portland, W.S.W., 23, fine, and smooth sea, temperature 67°; Wilson's Promontory, W., 34, squally and hazy, rough sea, temperature 62°.

New South Wales.—Cape St. George, N., 28, fine, temperature 76°; Clarence River, S.E., 14, fine, smooth sea, 80°; Deniliquin, calm, fine, temperature 76°; Dubbo, N.W., 14, fine, temperature 77°; Goulburn, N.W., 14, fine, temperature 70°; Menindie, S.E., fine and warm, temperature 75°; Moruya, S.E., 23, fine, and smooth sea, temperature 73°; Newcastle, N.E., 23, fine, and smooth sea, temperature 74°; Port Macquarie, N.E., 23, fine, and heavy sea, temperature 80°; Sydney, N.E., 20, fine, smooth sea, temperature 74°; Wentworth, S.E., clear and warm, temperature 71; Bateman's Bay, E., 28, fine, temperature 72°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 7 inches above summer level; at Hay, below summer level; at Balranald, 2 feet below summer level. Murray: At Albury, 4 inches above summer level; at Euston, 1 foot 5 inches above summer level. Darling: At Wentworth, 1 foot 9½ inches above summer level; at Pooncarie, 9 inches above summer level; at Menindie, low; at Wilcannia, 5 inches above summer level; at Bourke, below summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 11.

Sun rises at 5.57, sets at 6.23; Moon 10.47 a.m., 9.29 p.m.; Mercury, 6.54 a.m., 6.56 p.m.; Venus, 3.50 a.m., 4.35 p.m.; Mars, 6.15 p.m., 5.26 a.m.; Jupiter, 6.55 p.m., 6.55 a.m.; Saturn, 1.55 p.m. 11.47 p.m. New moon 6th, full moon 20th.

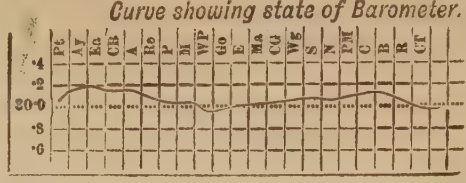
High water at Fort Denison: 11.31 a.m., 11.50 p.m.

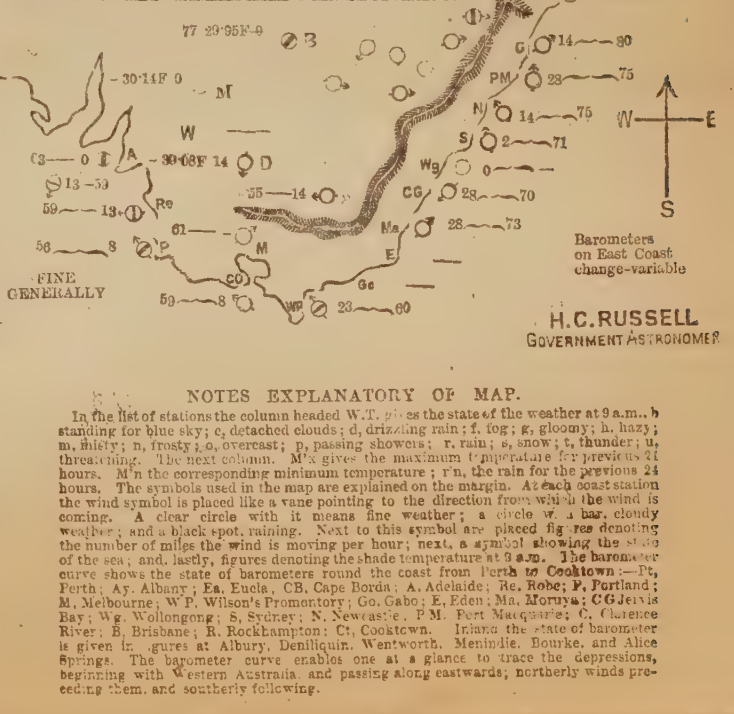
Albury	b	85 47	0
Armidale	b	80 56	0
Balranald	b	99 35	0
Bathurst	b	82 47	0
Bend'm'r	u	85 62	0
Bodalla ..	b	82 —	0
Bourke ..	c	96 62	0
C'md'n H.	b	78 66	0
C. St. Geo.	b	79 65	0
Carcoar ..	b	72 50	0
Casino ..	b	86 62	0
Cassilis ..	b	85 60	0
Clarence	b	94 70	0
C'nd'b'lin	–	— —	–
Cooma ..	g	81 45	0
Coonab'n	h	92 46	0
C'nam ble	g	— —	0
Cowra ..	b	90 55	0
Deniliq'n	b	80 44	0
Dubbo ..	b	91 55	0
Eden	–	— —	–
Euston ..	b	96 47	0
Forbes ..	b	79 52	0
Gl'n Inn's	b	82 61	0
Goulburn	b	85 54	0
Grafton ..	u	91 70	0
Ea.			
Gulgong	b	82 67	0
Gunned'h	–	— —	–
Hay	b	85 50	0
Hill End	b	— —	0
Inverell ..	o	87 63	0
Kiandra	n	69 28	0
Lismore	b	84 67	0
Maitland	b	85 60	0
Marsdens	b	86 58	0
Menindie	b	81 60	0
Molong ..	b	88 52	0
Moree ..	b	94 68	0
Moruya ..	b	65 —	0
Moss Vale	b	78 60	0
Mt. Hope	–	— —	–
M. Vict'ria	b	79 53	0
Mudgee ..	b	96 50	0
M'rr'm'bh	b	88 51	0
M'rr'ndi	b	86 58	0
Mus'lbr'k	b	95 57	0
Narrabri	b	94 58	0
Newcastle	b	79 66	0
Nowra ..	–	— —	–
Orange ..	b	72 48	0
Picton ..	g	83 54	0
P. M'q'rie	b	81 64	0
P. St'ph'n	b	81 62	0
Q'nbeyan	b	76 56	0
Quirindi	h	98 67	0
Singleton	b	86 69	0
Sydney ..	h	77 62	0
Tamw'rth	g	— —	0
Taralga ..	b	92 52	0
Taree	b	83 62	0
T'nt'rfield	n	86 61	0
Wagga ..	b	82 43	0
Walcha ..	b	80 57	0
Walgett ..	c	91 59	0
W'ntw'rth	–	— —	–
Wilcannia	b	— —	0
W'll'ng'ng	b	84 59	0
Young ..	b	95 47	0

SYDNEY OBSERVATORY.

Latitude 33° 51′ 41″ S.; Longitude 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 28 years from Jan. 1st to Feb'ry 28th 9·112
Total Rainfall from January 1st to March 11th 3·591
Barometers corrected to 32° Fah. and Mean Sea Level





H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.. b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with a bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay. Albany; Ea. Eucla, CB, Cape Borda; A. Adelaide; Re. Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle, P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light E. and S.E. winds, and slightly risen barometers, smooth sea on west coast, rough at Albany, and moderate at Esperance Bay. Barometer at Geraldton 30·12. Temperature at 9 a.m. ranging from 63° at Esperance Bay to 80° at Geraldton. No rain reported.

South Australia.—Generally gloomy and cool on south coast, with light W. and S. winds, risen barometers, and smooth sea inland, and in Northern Territory generally fine, with light winds from S.E. and S.W. At Alice Springs calm and raining, with barometers steady at 30·30, being the highest recorded reading in Australia to-day; barometers at Daly Waters and Port Darwin, 29·99 and 29·89; and temperature at 9 a.m. ranging from 67° at Alice Springs to 85° at Port Darwin. Rainfall: Port Darwin, 0·42; and Alice Springs, 0·13.

Victoria.—Generally fine, with light W. winds on coast; moderately smooth sea and slightly risen barometers; squally and threatening at Wilson's Promontory; misty at Cape Otway; and heavy dew last night at Melbourne, Lake Entrance, and Omeo. Inland:—Omeo, barometer 30·05; Echuca, 29·98. Generally fine, with light variable winds and calm; temperature at 9 a.m. ranging from 54° at Omeo to 65° at Horsham.

Tasmania.—Generally fine, with fresh W. and N.W. winds and moderately smooth sea. Barometers at Low Head, 29·93; Falmouth, 29·76; South Port, 29·73. Temperature at 9 a.m. ranging from 54° at Falmouth to 59° at South Port; rainfall at the latter, 0·02.

New Zealand.—On North Island fine, with westerly winds; at Bluff squally, from N.W., and passing showers; on West Coast, strong W. wind, passing showers, and rough sea. Barometers at Bluff and Wellington 29·60, being the lowest recorded in Australia to-day; at Russell steady at 29·90.

New South Wales.—Generally fine, with N.E. to S.E. winds and calms; barometers risen south, and fallen at and north of Sydney; sea moderately smooth; heavy frost on mountains; no rain. Extra stations: Condobolin, maximum 82°, minimum 44°, calm and fine. Mount Hope, maximum 67°, minimum 60°, calm and fine and cool. Bundarra, maximum 89°, minimum 59°; N. wind, cloudy, and cool. Morangarell, maximum 80°, minimum 29·98, thermometer 69°; maximum 71, minimum 59°; fine and smooth sea. Gabo Island, barometer 30·01, thermometer 62°; N. wind, fine and misty, and smooth sea. For further particulars see map.

Queensland.—Generally fine, with E. and S.E. winds and steady barometer, except at Townsville, where it has fallen 29·66; sea continuing rough at Cape Moreton, where rain measured 0·50 at 9 a.m.; smooth sea further north; temperature at 9 a.m. ranging from 79° in south to 93° at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.S.W., 28, fine, temperature 67°; Cape Otway, W., 28, light rain, misty, and moderate sea, temperature 60°; Portland, W.N.W., 28, fine, and smooth sea, temperature 64°; Wilson's Promontory, W., 23, fierce squalls, moderate sea, temperature 62°.

New South Wales.—Cape St. George, N., 28, fine, moderate sea, temperature 74°; Deniliquin, S., fine, temperature 68°; Dubbo, W., 14, fine, temperature 80°; Eden, N.E., 14, fine, smooth sea, temperature 69°; Goulburn, N.W., 14, fine, temperature 74°; Moruya, N.E., 28, fine, and moderate sea, temperature 76°; Newcastle, N.E., 14, fine, and smooth sea, temperature 77°; Port Macquarie, N.N.E., 28, fine, and hazy, moderate sea, temperature 81°; Sydney, E.N.E., 20, fine, and hazy, smooth sea, temperature 75°; Wentworth, S.W., fine, temperature 72°; Bateman's Bay, E., 42, fine, smooth sea, temperature 74°; Walgett, N.W., fine and sultry, temperature 92.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, below summer level; at Balranald, 2 feet above summer level. Murray: At Albury, 1 foot 6 inches above summer level; Darling: At Pooncarie, 12 inches above summer level; at Menindie, summer level; at Wilcannia, low; at Bourke, below summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 12.

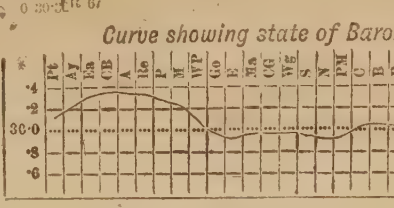
Sun rises at 5.58, sets at 6.22; Moon 11.45 a.m., 10.15 p.m.; Mercury, 6.59 a.m., 6.50 p.m.; Venus, 3.46 a.m., 4.32 p.m.; Mars, 6.10 p.m., 6.20 a.m.; Jupiter, 6.55 p.m., 6.51 a.m.;

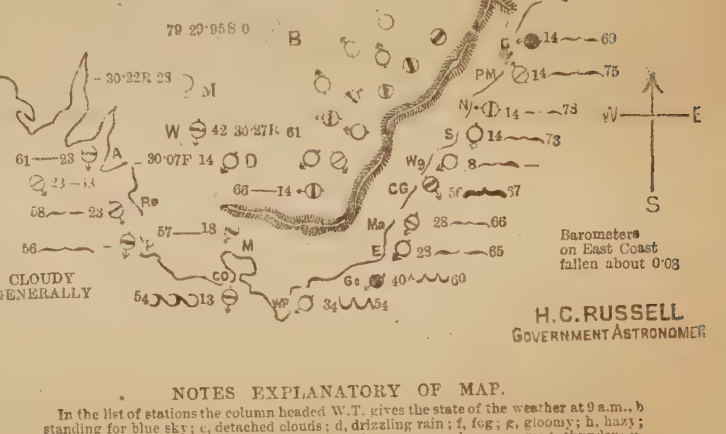
METEOROLOGICAL REPORTS AND MAP FOR MARCH 12, 1886.

Stations	wt	Mx	mn	rn
Albury	c	87	53	0
Armidale	u	81	59	0·60
Balranald	b	98	40	0
Bathurst	u	90	55	0
Bend'm'r	u	83	60	0·29
Bodalla ..	g	83	—	0
Bourke ..	b	102	64	0
C'md'n H.	u	83	70	0
C. St. Geo.	c	77	65	0
Carcoar ..	g	75	61	0
Casino ..	r	90	66	0·08
Cassilis ..	c	85	66	0
Clarence	r	88	69	0·11
C'nd'b'lin	c	83	48	0
Cooma ..	u	87	44	0
Coonab'n	g	91	58	0
C'nam ble	b	—	—	0
Cowra ..	g	92	63	0
Deniliq'n	b	92	49	0
Dubbo ..	b	93	57	0
Eden ..	b	72	58	0
Euston ..	g	90	54	0
Forbes ..	g	92	62	0
Gl'n Inn's	g	75	85	0·44
Goulburn	g	90	54	0
Grafton ..	r	93	70	0·10
Ea.				
Gulgong	u	85	69	0
Gunned'h	—	—	—	—
Hay	b	90	53	0
Hill End	u	—	—	0
Inverell ..	u	87	64	0·48
Kiandra	b	67	37	0
Lismore	d	88	71	0·14
Maitland	g	91	63	0·09
Marsdens	g	91	65	0
Menindie	b	85	61	0
Molong ..	c	91	58	0
Moree ..	b	88	60	0·04
Moruya ..	g	80	69	0
Moss Vale	u	83	58	0
Mt. Hope	u	70	64	0
M. Vict'ria	c	85	60	0
Mudgee ..	c	94	66	0
M'rr'm'bh	c	90	38	0
M'rr'ndi	g	85	65	0
Mus'br'k	b	99	70	0
Narrabri	b	94	68	0
Newcastle	g	79	72	0
Nowra ..	c	84	57	0
Orange ..	g	79	53	0
Picton ..	b	82	55	0
P. M'q'rie	c	81	69	0
P. St'ph'n	c	84	67	0·03
Q'nbeyan	g	80	54	0
Quirindi	u	95	70	0
Singleton	b	92	79	0
Sydney ..	b	78	67	0
Tamw'rth	n	89	68	0·26
Taraiga ..	u	89	52	0
Taree	g	92	68	0·03
T'nt'rfield	—	—	—	—
Wagga ..	b	60	53	0
Walcha ..	u	80	57	0
Walgott ..	b	97	67	0
W'ntw'rth	c	85	55	0
Wilcannia	b	—	—	0
W'll'ng'ng	h	83	62	0
Young ..	g	98	75	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S.; LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 28 years from Jan. 1st to Feb'ry 28th 3·742
Total Rainfall from January 1st to March 12th 3·591
Barometers corrected to 32° Fah. and Mean Sea Level





H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ba, Bucks; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given by figures at Albany, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light winds from N.E. to S.E.; sea rough off Carnarvon, at mouth of Gascoyne River, and off Albany; smooth elsewhere. Barometers ranging from 29·87 at Cossack on N.W. coast, to 30·33 at Esperance Bay; temperature at 9 a.m. from 61° at Esperance Bay to 84° at Carnarvon; no rain reported.

South Australia.—Generally gloomy, cloudy, and threatening rain, with high barometers, fresh south and west winds, and smooth sea on south coast; calm and cloudy in central, and fine in Northern Territory; barometers inland ranging from 29·91 at Port Darwin to 30·32 at Alice Springs, and temperature at 9 a.m. from 86° to 67° respectively. Rainfall: Alice Springs, 0·50; M'Donnell Bay, 0·02.

Victoria.—Generally cloudy and gloomy, with fresh winds from S.E. and S.W., and barometers risen about 0·25; misty and very high sea, with rainfall (0·06) at Cape Otway; squally and rainfall (0·02) at Melbourne; squally and high sea Wilson's Promontory; passing showers and moderate sea at Lake Entrance. Inland: Generally fine with S.W. winds. Barometers 30·12, and temperature 65° at Horsham; 30·07 and 50° at Omeo, no rain fallen.

Tasmania.—Generally fine, with fresh S.W. winds and moderate sea; snow at Hobart and hailstone at Southport, and temperature at 9 a.m., 45°; at Low Head, 54°; barometers 29·79 at Southport, and rainfall 0·29; 30·03 at Low Head; rainfall at Hobart, 0·14.

New Zealand.—Generally fine with N.W. wind and barometers risen from two to four tenths. Russell, 30·30; Wellington, 30·10; and Bluff, 29·80.

Queensland.—Generally fine, with light winds from N.E. to S.E., and moderate sea. Rainfall at Brisbane, 1·55; temperature at 9 a.m. ranging from 71° at Brisbane to 93° at Cooktown; barometer at Townsville, 29·77, being the lowest recorded reading in Australia, the highest being 30·36 at Cape Otway, Victoria.

New South Wales.—Generally very unsettled and gloomy, with fresh south and west winds, fallen barometers and moderate sea; showery, with squally S.W. wind and rather rough sea at Gabo; rainfall in northern coast districts, and light rain fallen in Clarence district during last 24 hours. Extra stations: Bundarra maximum 79°, minimum 61°, calm, and threatening weather. Morangarell, maximum 85°, minimum 61°; light west wind, and dull weather. Bateman's Bay, fresh south wind, cloudy weather, and moderate sea; temperature 68°. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.W., 28, squally and cloudy, temperature 39°; Cape Otway, S., 13, misty, very high sea, temperature 66°; Lakes Entrance, S.W., 28, squally and rough, temperature 61°; Portland, S., 34, fine but cloudy, smooth sea, temperature 59°; Wilson's Promontory, S.W., 34, passing showers, sea rough, temperature 55°.

New South Wales.—Cape St. George, S.E., 56, cloudy, moderate sea, temperature 67°; Deniliquin, S.E., fine, temperature 72°; Eden, S.W., 28, fine, light sea, temperature 65°; Goulburn, E.N.E., dull, temperature 72°; Menindie, S., fine and cool, temperature 74°; Moruya, S., 40, fresh gale, sea rising, temperature 66°; Newcastle, S.E., raining, smooth sea, temperature 83°; Port Macquarie, S., 14, fine, smooth sea, temperature 86°; Sydney, S.S.E., 20, dull, cloudy, little sea, temperature 71°; Wentworth, S.W., 28, clear and cool, temperature 60°; Bateman's Bay, S., 42, cloudy, smooth sea, temperature 66°; Wilcannia, S.W., cloudy and stormy-looking, temperature 89°.

STATE OF RIVERS.

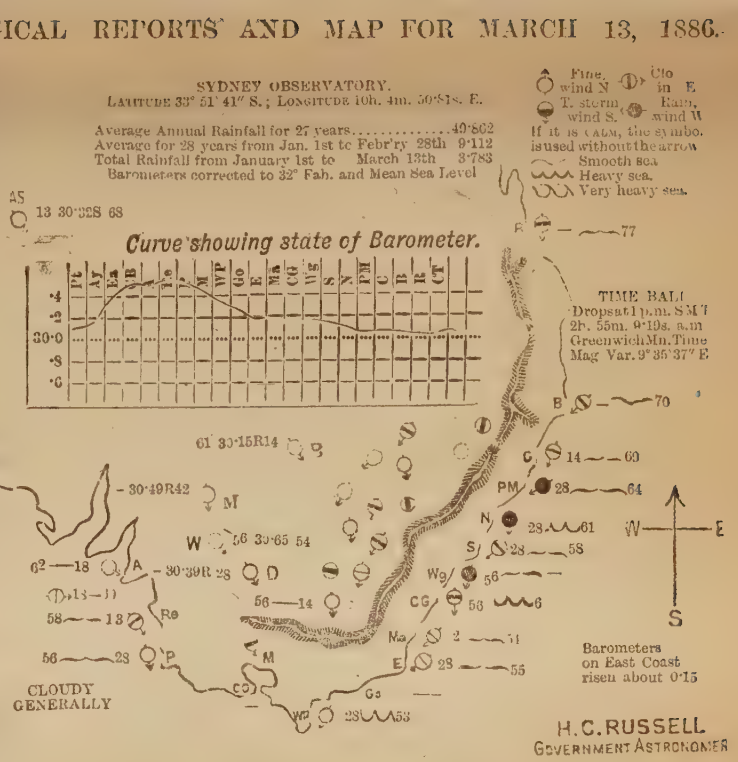
Murrumbidgee: At Wagga, 8 inches above summer level; at Hay, below summer level; at Balranald, 2 feet above summer level. Murray: At Albury, 1 foot above summer level; at Euston, 1 foot 3 inches above summer level. Darling: At Wentworth, 1 foot 4 inches above summer level, at Pooncarie, 1 foot 1 inch above summer level; at Menindie, low; at Wilcannia, low; at Bourke, below summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 13.

Sun rises at 5.59, sets at 6.20; Moon, 12.44 a.m., 11.4 p.m.; Mercury, 7.4 a.m., 6.57 p.m.; Venus, 3.42 a.m., 4.29 p.m.; Mars, 6.5 p.m., 5.35 a.m.; Jupiter, 6.47 p.m., 6.46 a.m.; Saturn, 1.47 p.m., 11.39 p.m. New moon 6th, full moon 20th. High water at Fort Denison, March 13: 12.35 a.m., 1.2 p.m.

METEOROLOGICAL REPORTS AND MAP FOR MARCH 13, 1886.

Stations	wt	Mx	Mn	R'fn
Albury	b	89	48	0
Armidale	u	75	57	0·16
Balranald	b	86	33	0
Bathurst	u	79	52	0
Bend'm'r	u	75	56	0·16
Bodalla ..	b	74	60	0
Bourke ..	b	95	54	0
C'md'n H.	u	82	65	0
C. St. Geo.	c	71	40	0·08
Carcoar ..	u	72	65	0
Casino ..	r	83	62	0·37
Cassilis ..	o	84	61	0
Clarence	u	87	67	0·43
C'nd'b'lin	b	80	36	0
Cooma ..	c	49	34	0
Coonab'n	b	84	57	0
C'nam ble	b	—	—	0
Cowra ..	b	85	52	0
Deniliq'n	b	85	39	0
Dubbo ..	b	85	52	0
Eden	b	67	48	0
Euston ..	b	79	44	0
Forbes ..	b	94	64	0
Gl'n Inn's	c	77	56	0·15
Goulburn	–	—	—	—
Grafton ..	u	85	65	0·29
Gulgong	u	81	61	0·05
Gunned'h	–	—	—	—
Hay	b	81	44	0
Hill End	–	—	—	—
Inverell..	b	82	60	0·11
Kiandra	n	62	27	0
Lismore	r	79	68	0·18
Maitland	u	82	41	1·74
Marsdens	b	81	56	0
Menindie	b	75	53	0
Molong ..	b	83	54	0
Moree ..	g	86	61	0·07
Moruya ..	c	71	58	0
Moss Vale	s	70	41	0·25
Mt. Hope	b	64	56	0
M. Vict'ria	r	74	41	0·28
Mudgee ..	u	91	53	0
M'rr'm'bh	u	85	55	0
M'rr'ndi	u	81	59	0·05
Mus'll'br'k	b	94	53	0·40
Narrabri	u	95	67	0·10
Newcastle	r	82	58	2·90
Nowra ..	–	—	—	—
Orange ..	g	78	49	0
Picton ..	u	77	52	0
P. M'q'rie	r	82	63	0·21
P. St'ph'n	r	83	53	6·60
Q'nbeyan	c	76	45	0·10
Quirindi	u	87	62	0·16
Singleton	u	92	63	0·40
Sydney ..	o	77	57	0·19
Tam'w'rth	–	—	—	—
Taralga ..	–	—	—	—
Taree	c	88	64	0·09
T'nt'rfield	u	75	57	0·15
Wagga ..	b	80	44	0
Walcha ..	u	75	54	0
Walgett..	b	100	59	0
W'ntw'rth	b	74	47	0
Wilcannia	–	—	—	0
W'll'ng'ng	r	78	48	—
Young ..	b	94	48	0·62



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W, P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light N. and E. winds, risen barometers, and smooth sea; temperature at 9 a.m., 66° at Esperance Bay, 81° at Perth; no rain.

South Australia.—Generally cold on and near coast, with easterly winds, scattered clouds, high barometers, and smooth sea; inland generally fine, with S.E. winds at from 23 to 34 miles per hour. Rainfall: At Alice Springs, 0·20.

Victoria.—Generally fine, cool, and squally, very high barometers, and rough sea on S.E. coast; hailstorm at Lake Entrance. Rainfall: Melbourne, 0·20; Wilson's Promontory, 0·02; Portland, 0·01; Lake Entrance, 0·24. Inland: Fine, with low temperature; Omeo, at 9 a.m., 44°, and rainfall 0·10; strong southerly winds generally.

Tasmania.—Generally fine, with fresh southerly winds, high barometers, and smooth sea; showery at Hobart, and rain 0·16; moderate sea at Southport, and rain 1·44; barometers at Low Head, 30·36, temperature 51°

New Zealand.—Generally fine with strong variable winds and fallen barometers—Russell, 30·2; Wellington, 30·1; and Bluff, 29·9.

New South Wales.—Generally showery and cloudy, or threatening rain on the whole of the coast as far inland as the mountains, and light rain measured, heaviest at Port Stephens, Newcastle, and Maitland, with 6·60, 2·90, and 1·74 inches respectively; snowing at Moss Vale; sea rough and moderate; barometers risen, temperature low, and strong southerly winds. Inland, barometers very high, and generally fine. Extra stations: Bundarra, maximum 80°, minimum 59°, rainfall 0·30, calm, cloudy weather; Morangarell, maximum 75°, minimum 51°, S.W. wind, fine, cool weather. For further particulars see map.

Queensland.—At Rockhampton and Brisbane cloudy, with S. and S.W. winds, moderate sea; farther north, fine. Rainfall: Cooktown, 0·80; Brisbane, 0·02; Rockhampton, 0·01.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, S., 6, misty, high sea, temperature 61°; Portland, S.S.E., 30, cloudy, smooth sea, temperature 59°; Wilson's Promontory, S., 24, squally, sea rough, temperature 60°.

New South Wales.—Cape St. George, S., 14, cloudy, heavy sea, temperature 57°; Clarence River, S., 20, cloudy, moderate sea, temperature 77°; Deniliquin, calm, fine, cool, temperature 60°; Dubbo, S.W., 40, fine, temperature 70°; Eden, S.W., 28, fine, easterly seas, temperature 60°; Goulburn, S.S.E., cloudy, temperature 61°; Menindie, S., fine, temperature 67°; Moruya, S., 40, cloudy, moderate sea, temperature 59°; Newcastle, S., 35, stormy, heavy sea, temperature 58°; Port Macquarie, S., 56, cloudy, smooth sea, temperature 72°; Sydney, S., 20, showery, moderate sea, temperature 57° Wentworth, S.W., fine, temperature 62°; Walgett, S.S.W., strong wind, fine, temperature 79°. Rainfall of 6·60 inches is reported from Nelson's Bay, where the rain has been very heavy. At 4.30 p.m. to-day a waterspout was seen off the Heads there. It will be seen that the rain has been confined to the coast, and has been heaviest at Port Stephens and Newcastle. 9 a.m. on Sunday 1·67 inch of rain was measured at Sydney, and up to 9 p.m. 0·49 more, making the total at Sydney since Friday 2·35 inches.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 9 inches above summer level; at Hay, below summer level; at Balranald, 2 feet 6 inches above summer level. Murray: At Albury, 11 inches above summer level; at Euston, 1 foot 2 inches above summer level. Darling: At Wentworth, 1 foot 4 inches above summer level; at Pooncarie, 1 foot 1 inch above summer level.

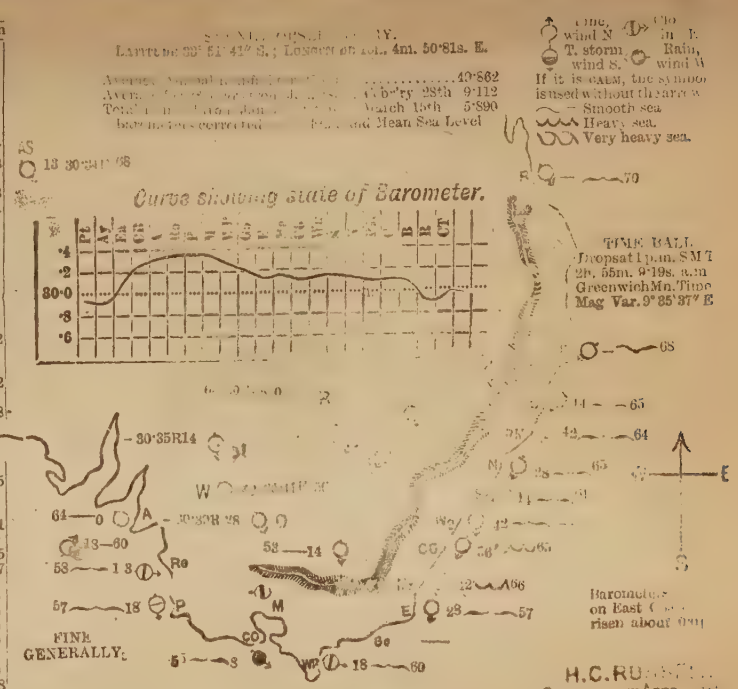
ASTRONOMICAL MEMORANDA FOR MARCH 15.

Sun rises at 6.1, sets at 6.17; Moon, 2.38 p.m.; Mercury, 7.12 a.m., 6.56 p.m.; Venus, 3.34 a.m., 4.23 p.m.; Mars, 5.56 p.m., 5.3 a.m.; Jupiter, 6.38 p.m., 6.37 a.m.; Saturn, 1.49 p.m., 11.52 p.m. New moon 6th, full moon 20th.

High water at Fort Denison, March 15: 2.40 a.m., 3.23 p.m.

METEOROLOGICAL REPORTS AND MAP FOR MARCH 15, 1886.

Stations	W.T.	Max.	Min.	Rain
Albury	b	76	38	0
Armidale	b	75	42	0
Balranald	b	82	32	0
Bathurst	b	66	36	0
Bend'm'r	b	72	35	0
Bodalla ..	b	73	66	0
Bourke ..	b	79	44	0
C'md'n H.	b	72	58	0·07
C. St. Geo.	b	74	53	0·18
Carcoar ..	b	64	43	0
Casino ..	b	77	49	0·38
Casilis ..	n	63	44	0·11
Clarence	b	87	65	0
C'nd'b'lin	b	70	35	0
Cooma ..	c	62	49	0
Coonab'n	n	69	33	0
C'nam ble	b	—	—	0
Cowra ..	b	73	46	0
Deniliq'n	b	76	37	0
Dubbo ..	h	77	39	0
Eden	u	67	55	0·12
Euston ..	b	79	45	0
Forbes ..	b	72	42	0
Gl'n Inn's	b	74	41	0·72
Goulburn	b	68	35	0
Grafton ..	b	83	56	0·08
Gulgong	b	78	50	0
Gunned'h	b	62	40	0·25
Hay	b	79	41	0
Hill End	b	—	—	0
Inverell ..	b	88	43	0·31
Kiandra	n	51	27	0
Lismore	b	73	57	0·05
Maitland	b	82	49	0·37
Marsdens	b	73	50	0
Menindie	b	70	53	0
Molong ..	b	79	47	0
Moree ..	b	78	47	0
Moruya ..	b	59	52	0
Moss Vale	—	—	—	—
Mt. Hope	b	66	59	0
M. Vict'ria	b	60	37	0·08
Mudgee ..	b	84	36	0
M'rr'm'bh	b	78	56	0
M'rr'r'ndi	n	56	41	0
Mus'br'k	b	65	43	0·91
Narrabri	b	81	40	0·06
Newcastle	b	67	50	2·07
Nowra ..	—	—	—	—
Orange ..	b	61	38	0
Picton ..	b	66	42	0
P. M'q'rie	b	69	51	0·03
P. St'ph'n	b	60	49	1·98
Q'nbeyan	b	60	44	0
Quirindi	b	88	46	0
Singleton	b	62	51	1·08
Sydney ..	b	63	52	2·11
Tamw'rth	b	63	37	0
Taralga ..	b	76	35	0
Taree ..	b	68	54	0·09
T'nt'rfield	b	77	41	0
Wagga ..	b	75	36	0
Walcha ..	n	71	33	0·02
Walgett ..	b	73	42	0
W'ntw'rth	b	72	51	0
Wilcannia	o	—	—	0
W'll'ng'ng	b	68	54	0
Young ..	b	83	41	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.; b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for the past twenty-four hours. Then the corresponding minimum temperature; and, lastly, the rainfall for the twenty-four hours. The symbols used in the map are explained on the margin: the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a double circle, changeable weather; and a black spot, raining. Next to this symbol are figures: the number of miles the wind is moving per hour; next, the reading of the barometer at the level of the sea; and, lastly, figures denoting the shade temperature. The barometer curve shows the state of barometers round the coast from Hobart to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, E. and S. winds, and moderate sea; highest barometer at Perth and Esperance Bay, 29·95; lowest at Carnarvon, 29·85; temperature at 9 a.m. ranging from 64° at Albany to 84° at Carnarvon. Rainfall: At Albany, 0·01.

South Australia.—Generally fine, N.E. and E. winds, slightly fallen barometers, and smooth sea on coast; inland and in Northern Territory generally fine and cool and fresh S.E. winds: barometers on coast and inland very high, in North low, Port Darwin being 0·54 lower than Adelaide, viz., 29·81; temperature inland and in North ranging from 64° at Alice Springs to 86° at Port Darwin. Rainfall: At Tennant's Creek, 0·09.

Victoria.—Generally cloudy and raining, fresh variable winds, high barometers, and moderate sea; passing showers and rough sea at Lakes Entrance and rainfall 0·05; misty rain and rainfall 0·06 at Cape Otway; Echuca, barometer 30·34 and temperature 64°; Omeo, 30·27 and rainfall 0·01; Horsham, 30·45, being the highest reported reading to-day. Rainfall: At Melbourne, 0·12.

Tasmania.—Generally cloudy, light southerly winds, and moderate sea; barometer at South Port 30·33, temperature 54°; at Falmouth 30·24; Low Heads, 30·27, and temperature 56°. Rainfall: At South Port, 0·02; at Hobart, 0·01.

New Zealand.—Generally fine, west and north winds, and showery on west coast of South Island. Barometers: At Russell, 30·2; Wellington, 30·1; Bluff, 30·0.

Queensland.—Generally fine, S.E. to S.W. wind and calm; moderate sea in south, very smooth in north; barometer at Townsville 29·74, being the lowest recorded to-day in Australia; temperature at 9 a.m. ranging from 68° at Brisbane to 91° at Cooktown. Rainfall: Brisbane, 0·10; and Cape Moreton, 0·25.

New South Wales.—Generally fine, strong southerly winds, and moderate sea on coast; barometers risen slightly on coast, and fallen inland; light rain fallen along coast districts, especially about Clarence River, but heaviest at Newcastle, Port Stephens, and Sydney; none recorded beyond the mountains south of Sydney; frosty on mountains, but cool generally. Extra stations: Bundarra, maximum 78°, minimum 39°, calm and fine; Mogil garell, maximum 62°, minimum 49°, S.E. wind and fine weather; Bateman's Bay, strong south wind, fine and clear, and smooth sea, temperature 61°. Camden reports 35 points of rain, and weather beautifully fine.

9 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.W., 18, fine but cloudy, temperature 63; Cape Otway, S., 8, fine but cloudy, temperature 69; Lakes Entrance, W.S.W., 18, fine but cloudy, sea moderate, temperature 63°; Portland, S.E., 18, cloudy, smooth sea, temperature 61°; Wilson's Promontory, E.S.E., 18, fine but cloudy, temperature 70.

New South Wales.—Cape St. George, S., 42, fine, heavy sea, temperature 65°; Clarence River, S., 42, fine, moderate sea, temperature 72°; Deniliquin, S., fine, temperature 70°; Dubbo, S.W., fine, temperature 69°; Goulburn, S., 14, dull, temperature 62°; Menindie, S.W., 28, fine and cool, temperature 68°; Moruya, S., 40, fine, rough sea, temperature 57°; Newcastle, S., 42, fine, moderate sea, temperature 68°; Port Macquarie, S.S.W., 42, fine, smooth sea, temperature 75°; Sydney, S., 35, fine, squally, moderate sea, temperature 67°; Wentworth, S., 54, temperature 64°; Walgett, S.S.W., fine, temperature 77°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 5 inches above summer level; at Hay, below summer level; at Balranald, [illegible] 6 inches above summer level. Murray: At Albury, 8 inches above summer level; at Euston, 1 foot above summer level. Darling: At Wentworth, 1 foot 2 inches above summer level; at Menindie, new; Wilcannia, 2 feet 11 inches above summer level.

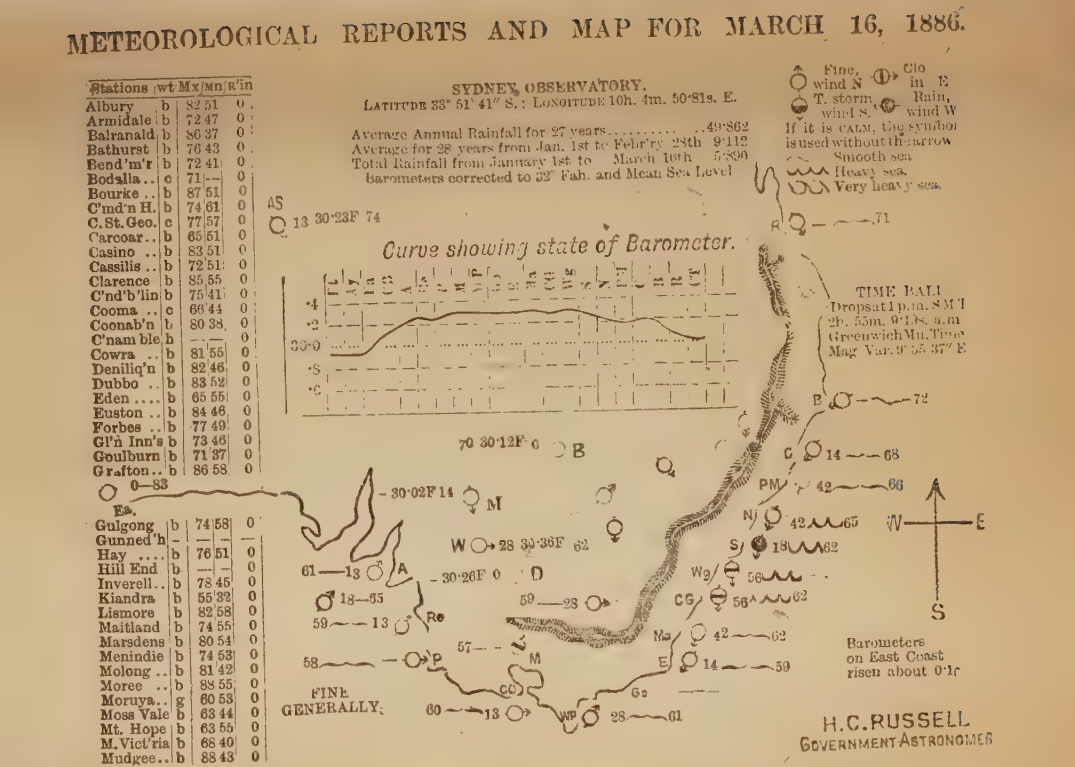
ASTRONOMICAL MEMORANDA FOR MARCH 16.

Sun rises at 6.1, sets at 6.16; Moon, 3.30 [illegible] a.m.; Mercury, 7.16 a.m., 6.55 p.m.; Venus, 3. [illegible] p.m.; Mars, 5.51 p.m., 4.58 a.m.; Jupiter, 6.34 p.m., [illegible]; Saturn, 1.36 p.m. 11.28 p.m. New moon 6th, full moon [illegible].

High water at Fort Denison, March 16: 4.5 a.m. [illegible]

METEOROLOGICAL REPORTS AND MAP FOR MARCH 16, 1886.

Stations	wt	Mx	Mn	R'in
Albury	b	82	51	0
Armidale	b	72	47	0
Balranald	b	86	37	0
Bathurst	b	76	43	0
Bend'm'r	b	72	41	0
Bodalla ..	c	71	—	0
Bourke ..	b	87	51	0
C'md'n H.	b	74	61	0
C. St. Geo.	c	77	57	0
Carcoar ..	b	65	51	0
Casino ..	b	83	51	0
Cassilis ..	b	72	51	0
Clarence	b	85	55	0
C'nd'b'lin	b	75	41	0
Cooma ..	c	66	44	0
Coonab'n	b	80	38	0
C'nam ble	h	—	—	0
Cowra ..	b	81	55	0
Deniliq'n	b	82	46	0
Dubbo ..	b	83	52	0
Eden	b	65	55	0
Euston ..	b	84	46	0
Forbes ..	b	77	49	0
Gl'n Inn's	b	73	46	0
Goulburn	b	71	37	0
Grafton ..	b	86	58	0
Gulgong	b	74	58	0
Gunned'h	–	—	—	—
Hay	b	76	51	0
Hill End	b	—	—	0
Inverell ..	b	78	45	0
Kiandra	b	55	32	0
Lismore	b	82	58	0
Maitland	b	74	55	0
Marsdens	b	80	54	0
Menindie	b	74	53	0
Molong ..	b	81	42	0
Moree ..	b	88	55	0
Moruya ..	g	66	53	0
Moss Vale	b	63	44	0
Mt. Hope	b	63	55	0
M. Vict'ria	b	68	40	0
Mudgee ..	b	88	43	0
M'rr'm'bh	b	83	52	0
M'rr'ndi	o	89	47	0
Mus'lbr'k	b	75	45	0
Narrabri	b	78	48	0
Newcastle	b	71	56	0·06
Nowra ..	h	72	48	0
Orange ..	b	66	41	0
Picton ..	b	72	50	0
P. M'q'rie	b	75	51	0
P. St'ph'n	c	62	54	0·40
Q'nbeyan	b	68	48	0
Quirindi	b	89	52	0
Singleton	b	65	58	0
Sydney ..	d	70	51	0
Tamw'rth	–	—	—	—
Taralga ..	b	85	40	0
Taree	b	78	60	0·01
T'nt'rfield	b	77	47	0
Wagga ..	b	69	49	0
Walcha ..	n	71	40	0
Walgett ..	b	78	49	0
W'ntw'rth	b	77	49	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	73	54	0
Young ..	b	90	47	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; l, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. Mx gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature; Rn, the rainfall for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: P, Perth; Av, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On south coast, cloudy and gloomy; on west coast, fine, with clouds between rivers Murchison and Gascoyne; at the mouth of the latter the sea is rough, elsewhere smooth; generally light southerly winds; extremes of barometers, 30·10 at Geraldton, and 29·74 at Cossack, on N.W. coast; temperature ranging from 58° at Albany to 84° at Cossack; no rain reported.

South Australia.—Generally fine and warm, with light winds from E. and N.E., high barometers, and smooth sea on coast; fine with light S.E. winds and calm inland, and in Northern Territory; barometers North are four-tenths lower than inland. South, viz.: 29·83 at Port Darwin; temperature at 9 a.m. ranging from 74° at Alice Springs to 85° at Port Darwin, at which latter place rainfall measured 0·06.

Victoria.—Generally fine and cool, with light E. and N.E. winds, high barometers, and moderate sea; fine but cloudy, with heavy dew last night at Melbourne and Lakes Entrance; extremes of barometers, 30·44 at Horsham (the highest recorded reading in Australia to-day), and 30·22 at Echuca; temperature at Omeo, 55°.

Tasmania.—Generally fine, with light winds from N.E. to S.E., high barometers and smooth sea; extremes of barometer, South Port 30·37, Circular Head 30·28, temperature ranging from 56° at Circular to 60° at Low Heads.

New Zealand.—Generally fine, with east and north winds, very stormy at Gisborne, where it is sultry; barometers generally at 30·2.

New South Wales.—Generally fine; on coast south of Sydney overcast and threatening, with passing showers of fine misty rain at Sydney in early morning: generally rather strong southerly winds and rough sea; moderate sea north of Newcastle; light rain fallen at Port Stephens and Newcastle. Extra stations: Bundarra, maximum 80°, minimum 49°, calm and fine; Moran-garell, maximum 72°, minimum 50°, S.E. wind and fine weather; Bateman's Bay, S.W. wind, cloudy and smooth sea, temperature 58°. For further particulars see map.

Queensland.—Generally fine, with southerly winds and moderate sea; barometers risen, but still low at Townsville, viz., 29·79; equally S.E. wind and rainfall 0·45 at Cooktown; temperature ranging from 71° at Rockhampton, to 91° at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.S.W., 13, fine, temperature 70; Cape Otway, E., 8, fine, temperature 65; Lakes Entrance, S.W., 23, gloomy, moderate sea, temperature 65°; Portland, E.N.E., 25, fine but cloudy, smooth sea, temperature 66°; Wilson's Promontory, N.E., 28, fine but cloudy, moderate sea, temperature 68°.

New South Wales.—Cape St. George, S., 42, fine, heavy sea, temperature 64°; Clarence River, S., 42, fine, moderate sea, temperature 73°; Deniliquin, calm, fine, temperature 76°; Dubbo, N.E., 14, fine, temperature 77°; Eden, S.W., 14, fine but cloudy, light sea, temperature 67°; Goulburn, S.E., fine, temperature 63°; Menindie, S.W., 14, fine and warm, temperature 74°; Moruya, S.S.E., 42, fine, moderate sea, temperature 66°; Newcastle, S., 28, fine, heavy sea, temperature 67°; Port Macquarie, S.S.W., 42, fine, moderate sea, temperature 75°; Sydney, S., 26, fine, moderate sea, temperature 67°; Wentworth, E., 14, fine and warm, temperature 74°; Bateman's Bay, E., 42, fine, smooth sea, temperature 65°; Walgett, S.S.E., fine and warm, temperature 81°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 5 inches above summer level; at Hay, below summer level; at Balranald, 2 feet 10 inches above summer level. Murray: At Albury, 7 inches above summer level; at Euston, 1 foot 4 inches above summer level. Darling: At Wentworth, 1 foot above summer level; at Pooncarie, 11 inches above summer level; at Menindie, low; at Wilcannia, 3 feet 4 inches above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR MARCH 17.

Sun rises at 6.2, sets at 6.14; Moon, 4.20 p.m., sets at 2.3 a.m.; Mercury, 7.18 a.m., 6.54 p.m.; Venus, 3.28 a.m., 4.1 p.m.; Mars, 5.46 p.m., 4.52 a.m.; Jupiter, 6.28 p.m., 6.29 a.m.; Saturn, 1.32 p.m., 11.44 p.m. New moon 6th, full moon 20th.

High water at Fort Denison, March 17: 5.29 a.m., 6.3 p.m.

METEOROLOGICAL REPORTS AND MAP FOR MAR[illegible]

Stations	wt	Mx	Mn	r'n	in
Albury	b	85	50	0	
Armidale	b	73	46	0	
Balranald	b	101	38	0	
Bathurst	b	74	40	0	
Bend'm'r	b	75	44	0	
Bodalla ..	b	71	—	0	
Bourke ..	b	92	55	0	
C'md'n H.	c	74	63	0	
C. St. Geo.	b	69	57	0	
Carcoar ..	b	87	51	0	
Casino ..	b	84	50	0	
Cassilis ..	b	70	52	0	
Clarence	b	87	55	0	
C'nd'b'lin	b	77	41	0	
Cooma ..	f	74	33	0	
Coonab'n	b	80	45	0	
C'nam ble	b	—	—	0	
Cowra ..	b	85	57	0	
Deniliq'n	b	91	42	0	
Dubbo ..	b	85	49	0	
Eden	b	70	54	0	
Euston ..	b	96	43	0	
Forbes ..	b	78	53	0	
Gl'n Inn's	b	80	45	0	
Goulburn	b	74	36	0	
Grafton ..	b	86	56	0	
Gulgong	b	75	58	0	
Gunned'h	—	—	—	—	
Hay	b	86	51	0	
Hill End	b	—	—	0	
Inverell ..	b	75	49	0	
Kiandra	n	61	25	0	
Lismore	b	80	58	0	
Maitland	g	74	59	0	
Marsdens	b	80	56	0	
Menindie	b	80	59	0	
Molong ..	b	82	44	0	
Moree ..	b	92	59	0	
Moruya ..	b	71	52	0	
Moss Vale	b	84	46	0	
Mt. Hope	b	85	60	0	
M. Vict'ria	b	66	41	0	
Mudgee ..	b	87	42	0	
M'rr'm'bh	b	61	50	0	
M'rr'r'ndi	c	70	54	0	
Mus'br'k	b	77	51	0	
Narrabri	b	80	51	0	
Newcastle	b	70	59	0·09	
Nowra ..	b	77	50	0	
Orange ..	b	62	40	0	
Picton ..	b	72	47	0·12	
P. M'q'rie	c	75	58	0	
P. St'ph'n	c	69	56	0·96	
Q'nbeyan	b	66	45	0	
Quirindi	b	88	59	0	
Singleton	g	72	61	0	
SYDNEY ..	c	70	58	0	
Tamw'rth	—	—	—	—	
Taralga ..	n	82	40	0	
Taree	b	77	59	0·05	
Tnt'rfield	b	77	43	0	
Wagga ..	b	63	48	0	
Walcha ..	n	67	44	0	
Walgett ..	b	85	49	0	
W'ntw'rth	b	88	46	0	
Wilcannia	b	—	—	0	
W'll'ng'ng	b	76	57	0	
Young ..	d	87	47	0	

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.. .....40·862
Average for 28 years from Jan. 1st to Febr'ry 28th 0·112
Total Rainfall from January 1st to March 17th 6·800
Barometers corrected to 32° Fah. and Mean Sea Level

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light southerly winds, rising barometers, and smooth sea; calm and cloudy at Albury; moderate sea at mouth of Gascoyne River. Extremes of barometer and temperature: 30·10 at Albany, 29·91 at Ashburton, 80° at Carnarvon, and 64° at Esperance Bay. No rain reported.

South Australia.—Generally fine and warm, with light winds from N.E. to S.E., northerly on coast, fallen barometers, and smooth sea. Extremes of barometers and temperature: 30·14 at Adelaide, 29·81 at Port Darwin, 65° at M'Donnell Bay, and 85° in Northern Territory. No rain reported.

Victoria.—Generally fine, with light E. and N.E. winds, fallen barometers, and moderate sea; hazy and heavy dew at Cape Otway and Melbourne; squally at Wilson's Promontory; fine but cloudy at Lakes Entrance. Extremes of barometers and temperature: 30·33 at Lakes Entrance and temperature 56°, 30·15 at Portland, and 70° at Echuca. No rain reported.

Tasmania.—Generally fine, light winds from N.E. and S.E., and fallen barometers; fine but cloudy, with dead calm sea, off Falmouth; cloudy at Low Heads. Extremes of temperature and barometers: 55° at Hobart, 63° at Falmouth, 30·27 at South Port, and 30·31 at Falmouth (the highest recorded barometer in Australia to-day). No rain reported.

New Zealand.—Generally gloomy, with E. and N.E. winds. Rainfall: At Wellington, 0·44, and barometer 30·3; Russell, 30·2.

New South Wales.—Generally fine and cool, with light southerly winds, fallen barometers, rough and moderate sea; heavy frost at Kiandra; light rain fallen near coast between Hunter and Manning rivers. Extra stations: Bundarra, maximum 77°, minimum 50°, calm and fine; Morangarell, maximum 79°; minimum 50°, E. wind, fine and warm; Bateman's Bay, S.W. wind, fine weather, smooth sea, and temperature 60°. For further particulars see map.

Queensland.—Generally fine, with S.E. and N.E. winds; rough sea at Cape Moreton, moderate farther north. Rainfall: At Cooktown, 0·07, and temperature 91°; Rockhampton [illegible]. Extremes of barometer: 30·10 at Brisbane, and 29·79 at Townsville (the lowest recorded reading in Australia to-day).

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, E.N.E., 15, fine, temperature 72; Cape Otway, E., 5, fine, smooth sea, temperature 69; Lakes Entrance, S.E., 18, fine, smooth sea, temperature 66°; Portland, E.S.E., 8, fine, smooth sea, temperature 69°; Wilson's Promontory, N.E., 18, fine, slight sea, temperature 67°.

New South Wales.—Cape St. George, S., 42, fine, heavy sea, temperature 66°; Clarence River, S., 28, fine, moderate sea, temperature 77°; Eden, S., 14, fine, light sea, temperature 58°; Goulburn, E.N.E., fine, temperature 61°; Menindie, calm, fine and warm, temperature 96°; Newcastle, S.E., 14, fine, smooth sea, temperature 69°; Port Macquarie, S., 28, cloudy, moderate sea, temperature 76°; Sydney, S., 12, fine, little sea, temperature 71°; Wentworth, E., fine, temperature 76°; Fireman's Bay, W., 14, fine, heavy sea, temperature 66°; Walgett, calm, fine, temperature 82°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 4 inches above summer level; at Hay, summer level; at Balranald, 2 feet 10 inches above summer level. Murray: At Albury, 4 inches above summer level. Darling: At Wentworth, 11 inches above summer level; at Pooncarie, 10 inches above summer level; at Wilcannia, 3 feet 7 inches above summer level.

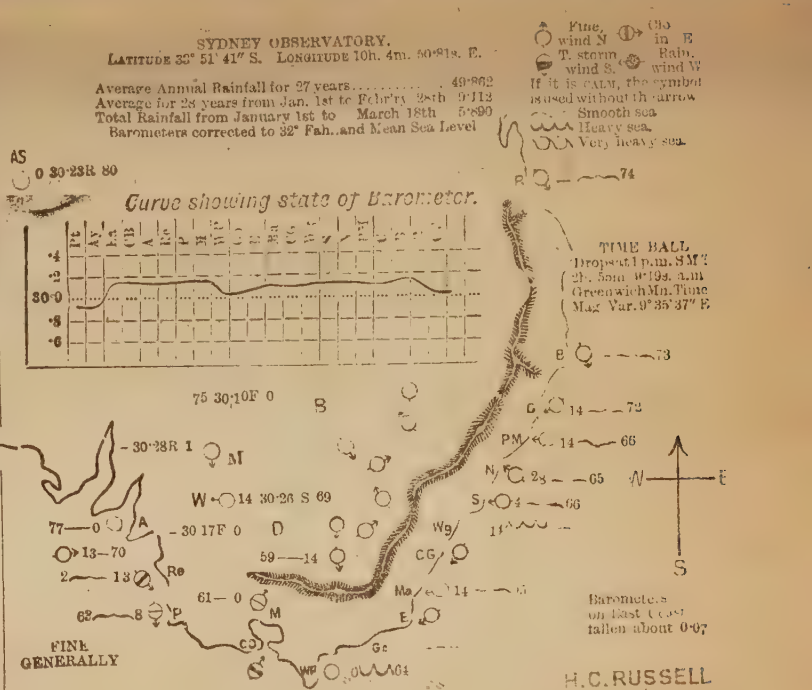
ASTRONOMICAL MEMORANDA FOR MARCH 18.

Sun rises at 6.3, sets at 6.13; Moon, 5.5 p.m., sets at 3.1 a.m.; Mercury, 7.23 a.m., 6.53 p.m.; Venus, 3.25 a.m., 4.15 p.m.; Mars, 5.41 p.m., 4.47 a.m.; Jupiter, 6.25 p.m., 6.24 a.m.; Saturn, 1.28 p.m., 11.20 p.m. New moon 6th, full moon 20th

High water at Port Denison, March 18: 6.37 a.m., 7.5 p.m.

METEOROLOGICAL REPORTS AND MAP FOR MARCH 18, 1886.

Stations	wt	Mx	mn	r'in
Albury	b	86	50	0
Armidale	b	72	46	0
Balranald	b	107	36	0
Bathurst	b	80	41	0
Bend'm'r	b	72	46	0
Bodalla ..	–	—	—	–
Bourke ..	b	91	53	0
C'md'n H.	b	74	56	0
C. St. Geo.	b	69	53	0
Carcoar ..	b	68	48	0
Casino ..	b	84	53	0
Cassilis .	b	73	50	0
Clarence	b	86	64	0
C'nd'b'lin	b	80	41	0
Cooma ..	n	78	32	0
Coonab'n	b	85	40	0
C'nam ble	–	—	—	–
Cowra ..	b	86	52	0
Deniliq'n	b	94	44	0
Dubbo ..	–	—	—	–
Eden	b	69	50	0
Euston ..	b	103	45	0
Forbes ..	b	82	49	0
Gl'n Inn's	b	84	51	0
Goulburn	b	80	41	0
Grafton ..	b	90	62	0
Ea.				
Gulgong	b	75	60	0
Gunned'h ..	–	—	—	–
Hay	b	83	51	0
Hill End	b	—	—	0
Inverell ..	b	77	50	0
Kiandra	n	69	30	0
Lismore	b	80	59	0
Maitland	b	76	53	0
Marsdens	b	86	55	0
Menindie	b	87	59	0
Molong ..	b	85	45	0
Moree ..	b	92	58	0
Moruya ..	b	70	51	0
Moss Vale	b	70	45	0
Mt. Hope	b	68	64	0
M. Vict'ria	b	74	46	0
Mudgee ..	b	89	41	0
M'rr'm'bh	b	85	51	0
M'rr'ndi	b	72	46	0
Mus'br'k	b	81	50	0
Narrabri	b	83	47	0
Newcastle	b	71	57	0
Nowra ..	b	75	50	0
Orange ..	b	79	40	0
Picton ..	b	76	43	0
P. M'q'rie	b	77	57	0
P. St'ph'n	b	71	57	0
Q'nbeyan	b	69	48	0
Quirindi	b	94	55	0
Singleton	b	70	56	0
SYDNEY ..	b	73	57	0
Tamw'rth	–	—	—	–
Taralga ..	b	79	40	0
Taree	b	78	54	0
T'nt'rfield	b	79	51	0
Wagga ..	b	67	45	0
Walcha ..	f	73	41	0
Walgett ..	b	85	53	0
W'ntw'rth	b	93	56	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	77	53	0
Young ..	d	93	44	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; L, Eden; Mo, Moruya; C G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with fresh southerly winds, moderate and smooth sea. Extremes of barometer and temperature: 30·11 at Geraldton, 29·83 at Cossack, and 85·61 at Esperance Bay. No rain reported.

South Australia.—Generally fine and warm, with southerly winds on coast and calm inland. Barometers fallen, and sea smooth. Extremes of barometers and temperature: 30·16 at Cape Borda, 29·85 at Port Darwin, 62° at Robe, and 84° at Port Darwin, at which place rain measured 0·35, and 1·45 at Daly Waters.

Victoria.—Generally cloudy and gloomy, with light variable winds and calms, and fallen barometers; smooth sea west of Melbourne, rough at Wilson's Promontory and Lakes Entrance. Extremes of barometers and temperature: 30·35 at Horsham (highest recorded in Australia to-day), 30·04 at Wilson's Promontory, 53° at Omeo, and 73° at Echuca.

Tasmania.—Generally fine, with light variable winds and calms, fallen barometers, and moderate sea; rough off Falmouth. Extremes of barometers and temperature: 30·07 on north coast, 30·03 on south, 57° at Falmouth, and 60° on north coast. No rain recorded.

New Zealand.—Generally fine, with light easterly winds and high barometers; strong E. wind and rough sea at Gisborne.

New South Wales.—Generally fine, with light westerly winds on coast and calm inland; barometers fallen on coast, risen inland; sea rough south of Sydney, moderate in north; no rain fallen. Extra stations: Bundarra, maximum 79°, minimum 42°, calm and fine; Morangarell, maximum 81°; minimum 48°, west wind and fine weather. For further particulars see map.

Queensland.—Generally fine, with S.E. winds, rather strong in north, and moderate sea. Rainfall—At Cape Moreton, 0·03. Extremes of barometers and temperature: 30·16 at Brisbane, 29·87 at Townsville, 73° at Brisbane, and 90° at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.W., 13, fine, temperature 77; Cape Otway, S.W., 8, cloudy and misty, smooth sea, temperature 62; Lakes Entrance, E., 13, fine but hazy, moderate sea, temperature 70°; Portland, S.S.E., 18, cloudy and smooth sea, temperature 63°; Wilson's Promontory, W., 18, fine but hazy, smooth sea, temperature 69°.

New South Wales.—Cape St. George, fine, heavy sea, temperature 72°; Clarence River, E.N.E., fine and smooth sea, temperature 76°; Deniliquin, calm, 0, dull, temperature 68°; Dubbo, W., fine, temperature 75°; Eden, N.E., 14, fine, smooth sea, temperature 64°; Goulburn, W., fine, temperature 68°; Menindie, calm, fine and hot, temperature 80; Moruya, N.E., 28, fine, smooth sea, temperature 70; Newcastle, N.E., 14, fine, smooth sea, temperature 73°; Port Macquarie, N.E., 42, fine and moderate sea, temperature 79°; Sydney, W., 10, fine, smooth sea, temperature 73°; Wentworth, S., 14, dull and cloudy, temperature 78°; Bateman's Bay, S.E., 56, fine and smooth sea, temperature 67°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 3 inches above summer level; at Hay, summer level; at Balranald, 3 feet below summer level. Murray: At Albury, 4 inches above summer level; at Euston, 10 inches above summer level. Darling: At Wentworth, 10 inches above summer level; at Pooncarie, 9 inches above summer level; at Menindie, low; at Wilcannia, 3 feet 8 inches above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR MARCH 19.

Sun rises at 6.3, sets at 6.12; Moon, 5.49 p.m., 4·17 a.m.; Mercury, 7.26 a.m., 6.52 p.m.; Venus, 3.22 a.m., 4.13 p.m.; Mars, 5.36 p.m., 4.41 a.m.; Jupiter, 6.21 p.m., 6.19 a.m.; Saturn, 1.24 p.m., 11.16 p.m. New moon 6th, full moon 20th.

High water at Fort Denison, March 19: 7.33 a.m., 7.57 p.m.

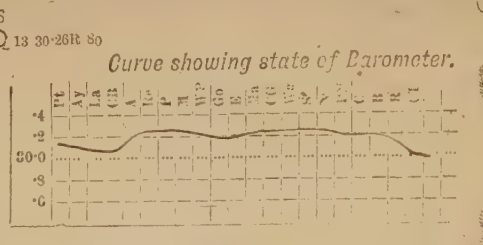
METEOROLOGICAL REPORTS AND MAP FOR MARCH 10, 1886.

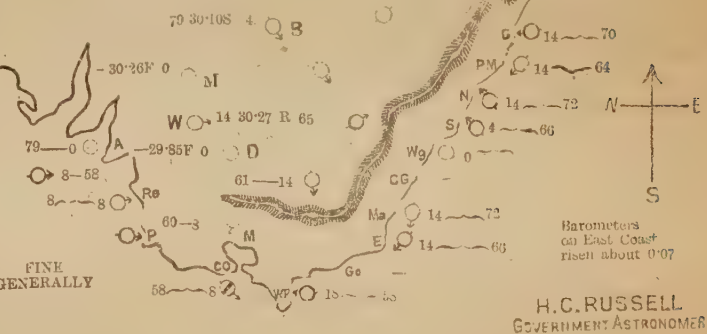
Stations	wt	Mx	Mn	r'in
Albury	b	87	64	0
Armidale	b	79	48	0
Balranald	b	100	40	0
Bathurst	b	85	46	0
Bend'm'r	b	78	50	0
Bodalla ..	b	73	—	0
Bourke ..	b	99	55	0
C'md'n H.	b	80	56	0
C. St. Geo.	–	—	—	–
Carcoar ..	b	70	53	0
Casino ..	b	88	52	0
Cassilis ..	b	81	55	0
Clarence	b	87	62	0
C'nd'b'lin	b	85	45	0
Cooma ..	c	85	40	0
Coonab'n	b	92	41	0
C'nam ble	b	—	—	0
Cowra ..	b	94	56	0
Deniliq'n	b	93	51	0
Dubbo ..	b	93	51	0
Eden	b	68	55	0
Euston ..	b	106	47	0
Forbes ..	b	96	54	0
Gl'n Inn's	b	87	51	0
Goulburn	b	87	41	0
Grafton ..	b	91	61	0
Gulgong	b	80	65	0
Gunned'h	–	—	—	—
Hay	b	76	61	0
Hill End	b	—	—	0
Inverell ..	b	80	53	0
Kiandra	n	72	31	0
Lismore	b	89	60	0
Maitland	b	81	57	0
Marsdens	b	89	59	0
Menindie	b	90	61	0
Molong ..	b	90	48	0
Moree ..	b	95	61	0
Moruya ..	b	76	51	0
Moss Vale	b	77	47	0
Mt. Hope	b	73	66	0
M. Vict'ria	b	80	48	0
Mudgee ..	b	95	35	0
M'rr'm'bh	b	93	52	0
M'rr'r'ndi	b	79	52	0
Mus'lbr'k	b	87	53	0
Narrabri	b	98	50	0
Newcastle	b	81	64	0
Nowra ..	b	83	53	0
Orange ..	b	75	45	0
Picton ..	b	83	44	0
P. M'q'rie	b	80	52	0
P. St'ph'n	b	75	55	0
Q'nbeyan	b	79	51	0
Quirindi	b	99	52	0
Singleton	b	70	61	0
SYDNEY ..	b	77	59	0
Tamw'rth	b	86	51	0
Taralga ..	b	90	36	0
Taree	b	85	56	0
T'nt'rfield	b	83	47	0
Wagga ..	b	69	47	0
Walcha ..	b	76	41	0
Walgett ..	b	90	51	0
W'ntw'rth	b	97	57	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	81	53	0
Young ..	g	101	48	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51' 41" S. LONGITUDE 10h. 4m. 50·0s. E.

Average Annual Rainfall for 27 years . . . . . 49·62
Average for 28 years from Jan. 1st to Feb'ry 28th 9·112
Total Rainfall from January 1st to March 10th 5·91
Barometers corrected to 32° Fah. and Mean Sea Level

Fine, wind N. Clo in E.
T. storm, rain, wind S. wind W.
If it is calm, the symbo. is used without the arrow.
Smooth sea
Heavy sea.
Very heavy sea.





FINE GENERALLY

Barometers on East Coast risen about 0·07

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Mx, gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature; r'in, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River, F, Brisbane; R, Rockhampton; Ck, Cooktown. Indeed the state of barometers is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Hay Springs. The barometer curve crashes one at a glance to know the depressions beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light southerly winds, risen barometers, and smooth sea; gloomy and threatening rain at Esperance Bay, where rain measured 0·01. This is the only rain recorded in the whole of Australia to-day. Extremes of barometer and temperature: 30·15 at Perth, 29·86 at Cossack and 85°, Albany 63°.

South Australia.—Generally fine, with light variable winds and smooth sea on coast; calm and fine inland. Extremes of barometers and temperature: 30·26 at Alice Springs, 29·86 at Port Darwin and 86°, 58° at Robe.

Victoria.—Generally fine, with light variable winds and calms, risen barometers, and moderate sea; misty at Cape Otway. Extremes of barometers and temperature: Steady at 30·35 at Horsham (the highest recorded reading in Australia to-day), 30·18 at Wilson's Promontory, 68° at Echuca, and 53° at Omeo.

Tasmania.—Generally fine, with light variable winds, risen barometers, and moderate sea. Extremes of barometers and temperature: 30·26 at Low Heads, Hobart, and Southport; 30·22 at Circular Head and Falmouth, 53° at Southport, and 60° at Circular Head.

New Zealand.—Generally gloomy, with N.W. winds, fallen barometers, and smooth sea; passing showers on west coast. Extremes of barometers and temperature: 30·20 at Russell, and 60° 29·90 at Bluff, 51° at Wellington.

New South Wales.—Generally fine, and clear, with light variable winds and calms, risen barometers and temperature, extremes of which were at 9 a.m.—30·27 at Wentworth, 29·85 at Deniliquin, 79° at Bourke, and 54° at Goulburn; no rain fallen, and sea now smooth. Extra stations: Cape St. George, N.W., 14, maximum 79°, minimum 56°, fine, and moderate sea; Bundarra, maximum 83°, minimum 49°, calm and cool; Morangarell, maximum 90°, minimum 52°, S.W., and fine weather; Bateman's Bay, fresh S.W. wind, fine weather, smooth sea, and temperature 58°. For further particulars see map.

Queensland.—Generally fine, with light southerly winds and at Brisbane, 29·81 at Townsville (the lowest recorded reading in Australia to-day), 72° at Rockhampton and 91° at Cooktown. At latter place there is strong S.E. wind and rough sea.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 13, fine, temperature 64°; Cape Otway, E., 8, fine, smooth sea, temperature [illegible]; Lakes Entrance, S., 18, fine, moderate sea, temperature 66°; Portland, E.S.E., 23, fine, smooth sea, temperature [illegible]; Wilson's Promontory, E., 17, fine, moderate sea, temperature 66°.

New South Wales.—Cape St. George, N.W., 14, fine, moderate sea, temperature 73°; Clarence River, [illegible], smooth sea, temperature 77°; Deniliquin, calm, [illegible], temperature 85°; Dubbo, S.S.W., 14, [illegible], fine, temperature 69°; [illegible], temperature 80°; Moruya, S.S.E., 2, [illegible], temperature 71; Newcastle, S.E., 14, [illegible], 75°; Port Macquarie, N.N.E., [illegible], Sydney, E., 14, fine but [illegible], Wentworth, W., fine and hot, [illegible], E., 12, fine, smooth sea, temperature [illegible].

STATE OF RIVERS.

Murrumbidgee: At Wagga, [illegible]; at Hay, summer level; at Balranald, [illegible]. Murray: At Albury, 3 inches above summer level; [illegible] 9 inches above summer level; [illegible] inches above summer level; [illegible] level; at Menindie, low; at Wentworth, 3 feet [illegible] summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR MARCH.

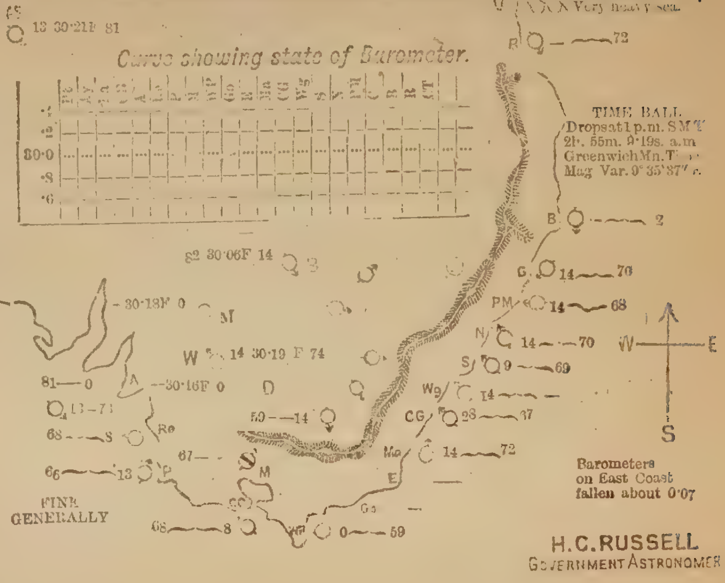
Sun rises at 6.4, sets at 6.10; Moon, [illegible] p.m., [illegible]; Mercury, 7.30 a.m., 6.51 p.m.; Venus, 2.19 a.m., [illegible]; Mars, 5.[illegible] p.m., 4.36 a.m.; [illegible]; [illegible] a.m., 1.[illegible] p.m.

Stations	wt	Mx	mn	R'in
Albury	b	91	52	0
Armidale	b	80	43	0
Balranald	b	112	47	0
Bathurst	b	89	48	0
Bend'm'r	b	85	45	0
Bodalla	b	77	-	0
Bourke	b	103	56	0
C'md'n H.	b	80	61	0
C.St.Geo.	b	80	58	0
Carcoar	b	74	63	0
Casino	b	87	49	0
Cassilis	b	83	53	0
Clarence	b	88	61	0
C'nd'b'lin	b	88	46	0
Cooma	b	89	41	0
Coonab'n	f	93	45	0
C'nam'ble	b	-	-	0
Cowra	b	97	57	0
Deniliq'n	b	93	52	0
Dubbo	b	92	55	0
Eden	-	-	-	-
Euston	b	106	53	0
Forbes	b	92	53	0
Gl'n Inn's	b	86	49	0
Goulburn	f	89	52	0
Grafton	b	92	58	0
Gulgong	b	82	62	0
Gunned'h	-	-	-	-
Hay	b	76	51	0
Hill End	b	-	-	0
Inverell	b	88	52	0
Kiandra	b	75	30	0
Lismore	b	86	55	0
Maitland	b	81	59	0
Marsdens	b	91	60	0
Menindie	b	92	64	0
Molong	b	87	46	0
Moree	b	98	63	0
Moruya	b	75	56	0
Moss Vale	b	76	56	0
Mt. Hope	b	96	52	0
M.Vict'ria	b	78	51	0
Mudgee	b	95	55	0
M'rr'm'bh	b	92	55	0
M'rr'r'ndi	b	80	53	0
Mus'lbr'k	b	87	57	0
Narrabri	b	90	51	0
Newcastle	b	77	-	0
Nowra	b	82	56	0
Orange	b	72	47	0
Picton	b	83	52	0
P. M'q'rie	b	80	55	0
P. St'ph'n	b	78	59	0
Q'nbeyan	b	79	57	0
Quirindi	b	101	62	0
Singleton	b	83	63	0
Sydney	b	75	63	0
Tamw'rth	b	89	53	0
Taralga	b	91	50	0
Taree	b	86	58	0
T'nt'rfield	b	81	45	0
Wagga	b	71	49	0
Walcha	b	80	43	0
Walgett	b	92	57	0
W'ntw'rth	b	98	59	0
Wilcannia	b	-	-	0
W'll'ng'ng	b	84	60	0
Young	b	102	50	0

SYDNEY OBSERVATORY.
Latitude 33° 51' 41" S. Longitude 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..............49·302
Average for 28 years from Jan. 1st to Febr'ry 28th 9·112
Total Rainfall from January 1st to March 20th 5·892
Barometer corrected to 32 Fah. and Mean Sea Level

Fine, wind N. Clo[udy] in E. T. storm, wind S. Rain, wind W.
If it is CALM, the symbol is used without the arrow.
Smooth sea. Heavy sea. Very heavy sea.



TIME BALL.
Dropsat 1 p.m. S.M.T.
2h. 55m. 9·19s. a.m.
Greenwich Mn. T[ime]
Mag Var. 9° 35' 37" E.

Barometers on East Coast fallen about 0·07

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Perth, barometer 30·14, temperature 6[illegible]; south wind and fine weather. Esperance Bay, 30.19, 58·; misty and cloudy weather. North-west wind, sea smooth.

South Australia.—Generally fine and warm, with fallen barometers, smooth sea and northerly winds on coast; south-east winds and calms inland and Northern Territory. Extremes of barometers and temperature: 30·21 at Alice Springs, 29·81 at Port Darwin and 86· 65· at Robe.

Victoria.—Generally fine but hazy, fallen barometers, moderate and smooth sea, and winds from N.E. and N.W. on coast, southerly winds inland; clouds at Melbourne and Lakes Entrance. Extremes of barometers and temperature: 30·34 at Horsham (the highest recorded reading in Australia to-day), 30·02 at Echuca, and 71· and 55· at these places respectively.

Tasmania.—Generally cloudy, gloomy, and hazy, with light south and west winds and fallen barometers, moderate sea in north, and dead calm in south. Extremes of barometers and temperature: 30·05 at Low Heads, 29·92 at Hobart, and 51·, 61· at Falmouth and Southport.

New Zealand.—Generally fine, with light variable winds, risen barometers, and smooth sea. Extremes of barometers and temperature: 30·20 at Russell, and 69·, 29·90 at Wellington, 60·; at Bluff.

New South Wales.—Generally very fine and clear, and fallen barometers, easterly winds and calm inland, westerly winds and smooth sea on coast. Extremes of barometers and temperature at 9 a.m.—30·22 at Clarence, 30·08, at Bourke and 82· and Cooma [illegible] Australia to-day. Extra Stations: [illegible], calm and fine; [illegible], calm, fine and cool; [illegible], temperature 66°, barometer [illegible].

Queensland.—[illegible] winds and moderate sea in south, rough in north. Extremes of barometers and temperature: 30·18 at Brisbane, and 72·, 29·79 at Townsville (the lowest recorded reading in Australia to-day), and 91· at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Barometers steady; Cape Otway, W., 9, smoky, smooth sea, temperature 72·; Portland, W.S.W., 26, fine, smooth sea, temperature 69·; Wilson's Promontory, N.W., 6, fine, smooth sea, temperature 79·.

New South Wales.—Cape St. George, N.N.E., 28, fine, smooth sea, temperature 71·; Deniliquin, calm, fine, smooth sea, temperature 77·; Dubbo, 0, fine, temperature 81·; Eden, calm, 0, fine, smooth sea, temperature 70·; Goulburn, W., calm, fine, temperature 72·; Menindie, S., 0, fine, temperature 87·; Moruya, N., 20, fine, smooth sea, temperature 77·; Newcastle, N.E., 10, fine, smooth sea, temperature 75·; Port Macquarie, N.N.E., 40, fine, smooth sea, temperature 79·; Sydney, N.N.E., 10, fine, moderate sea; Wentworth, N., warm, temperature 81·; Walgett, calm, fine, temperature 91·

STATE OF RIVERS.

Murrumbidgee: At Wagga, 3 inches above summer level; at Hay, below summer level; at Balranald, 3 feet above summer level. Murray: At Albury, 2 inches above summer level; at Euston, 8 inches above summer level. Darling: At Wentworth, 9 inches above summer level; at Pooncarie, 9 inches above summer level; at Menindie, low; at Wilcannia, 3 feet 9 inches above summer level; at Bourke, low.

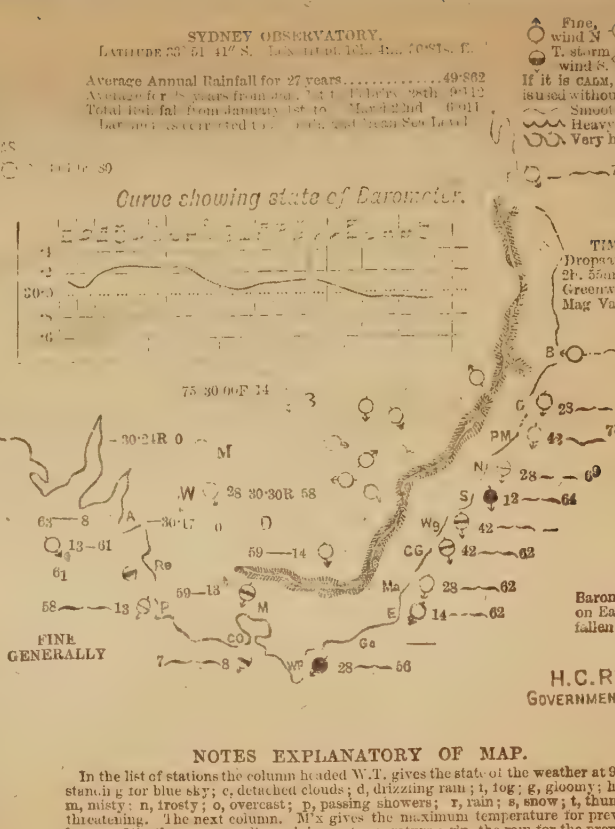
ASTRONOMICAL MEMORANDA FOR MARCH 22.

Sun rises at 6.6, sets at 6.8; Moon, 7.51 p.m., 7.37 a.m.; Mercury, 7.33 a.m., 6.48 p.m.; Venus, 3.14 a.m., 4.6 p.m.; Mars, 5.21 p.m., 4.25 a.m.; Jupiter, 6.8 p.m., 6.5 a.m.; Saturn, 1.13 p.m., 11.5 p.m. New moon 6th, full moon 20th.

High water at Fort Denison: 9.43 a.m., 10.3 p.m.

METEOROLOGICAL REPORTS AND MAP FOR MARCH 24, 1888.

Stations	wt	Mx	mn.	R'n
Albury	b	94	48	0
Armidale	b	84	52	0
Balranald	b	106	38	0
Bathurst	b	89	47	0
Bend'm'r	b	85	41	0
Bodalla ..	b	84	65	0
Bourke ..	b	108	67	0
C'md'n H.	u	82	03	0
C. St. Geo.	u	91	76	0
Carcoar ..	b	77	56	0
Casino ..	b	95	59	0
Cassilis ..	u	88	57	0
Clarence	b	83	61	0
C'nd'b'lin	b	94	46	0
Cooma ..	g	86	39	0
Coonab'n	b	93	57	0
C'nam ble	b	—	—	0
Cowra ..	b	95	58	0
Deniliq'n	b	99	45	0
Dubbo ..	h	98	58	0
Eden	b	74	57	-
Euston ..	b	87	49	0
Forbes ..	b	97	56	0
Gl'n Inn's	b	90	49	0
Goulburn	g	89	55	0
Grafton ..	b	103	66	0
Ea.				
Gulgong	u	83	66	0
Gunned'h	–	—	—	—
Hay ..	b	98	51	0
Hill End	b	—	—	0
Inverell ..	b	85	53	0
Kiandra	b	75	38	0
Lismore	b	93	62	0
Maitland	u	92	60	0
Marsdens	b	87	64	0
Menindie	b	81	61	0
Molong ..	u	96	51	0
Moree ..	b	100	63	0
Moruya ..	b	79	53	0
Moss Vale	u	84	55	0
Mt. Hope	b	83	66	0
M. Vict'ria	c	83	52	0·03
Mudgee ..	c	99	48	0
M'rr'm'bh	b	92	59	0
M'rr'ndi	b	85	58	0
Mus'br'k	b	95	63	0
Narrabri	b	93	53	0
Newcastle	g	95	68	0
Nowra ..	c	93	61	0
Orange ..	b	82	50	0
Picton ..	u	90	53	0
P. M'q'rie	c	81	65	0
P. St'ph'n	b	81	67	0
Q'nbeyan	b	85	56	0
Quirindi	b	102	62	0
Singleton	u	93	62	0
Sydney ..	r	93	63	0·12
Tamw'rth	b	92	52	0
Taralga ..	c	94	50	0
Taree	–	—	—	–
T'nt'rfield	b	85	46	0
Wagga ..	b	69	49	0
Walcha ..	b	81	43	0
Walgett..	b	96	64	0
W'ntw'rth	b	83	50	0
Wilcannia	b	—	—	0
W'll'ng'ng	o	96	61	0·03
Young ..	b	106	54	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., **b** standing for blue sky; **c**, detached clouds; **d**, drizzling rain; **t**, fog; **g**, gloomy; **h**, hazy; **m**, misty; **n**, frosty; **o**, overcast; **p**, passing showers; **r**, rain; **s**, snow; **t**, thunder; **u**, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and gloomy, with fresh easterly winds and smooth sea. Extremes of barometers and temperature: 30·24 at Esperance Bay, and 64°; 29·82 at Cossack, and 86°. Rainfall: Ashburton, 0·20; Perth, 1·0; Albany, 0·50.

South Australia.—Generally fine, with clouds in places, and light southerly winds; calm, fine, and warm inland. Extremes of barometers and temperature: 30·26 at Adelaide, 29·73 at Port Darwin and 83°, 58° at M'Donnell Bay. Rainfall at Port Darwin, 0·83.

Victoria.—Generally cloudy, gloomy, and raining, with fresh S.W. winds, high barometers, and moderate sea; passing showers, and rain 0·03, at Wilson's Promontory; misty at Cape Otway, threatening rain at Melbourne. Extremes of barometers: 30·33 at Horsham, 30·04 at Omeo.

Tasmania.—Generally cloudy, with fresh westerly winds and very smooth sea on East Coast; no rain fallen. Extremes of barometers and temperature: 30·08 at Circular Heads, 29·95 at Hobart, and 53°, 56° at Low Heads.

New Zealand.—Generally fine, with light variable winds and smooth sea. Extremes of barometers and temperature: 29·90 and 65° at Russell, 29·60 and 58° at Bluff.

New South Wales.—Generally fine fresh winds from S.E. and S.W., fallen barometers and moderate sea. Raining early this morning, near the coast to west and south of Sydney, cloudy and threatening about the coast north of Sydney, fine beyond the mountains. Extra Stations: Bundarra, maximum 87°, minimum 50°, calm, fine, and warm; Morangarell, maximum 94°, minimum 57°, calm, south wind and fine; Bateman's Bay, S.E. wind, fine weather, and smooth sea, temperature 64°. For further particulars see map.

Queensland.—Generally fine, with south-east winds and calm north of Brisbane, and moderate sea, west wind at Brisbane. Extremes of temperature and barometers: 29·98 at Rockhampton, and 72°, 29·78 at Townsville, and 94° at Cooktown, and rain at last place, 0·22.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 13, fine, but cloudy, temperature 61°; Cape Otway, S.W., 8, fine, but misty, smooth sea, temperature 60°; Lake Entrance, W., 23, fine but cloudy, moderate sea, temperature 63°; Portland, S.S.W., 23, fine but cloudy, smooth sea, temperature 62°; Wilson's Promontory, W.S.W., 28, fine and squally, moderate sea, temperature 59°.

New South Wales.—Cape St. George, S., 42, cloudy, smooth sea, temperature 66°; Deniliquin, calm, fine, smooth sea, temperature 72°; Dubbo, E., 14, fine, temperature 81°; Bateman's Bay, E., 28, fine, smooth sea, temperature 66°; Goulburn, calm, fine, temperature 68°; Menindie, S.W., fine and warm, temperature 75°; Moruya E.N.E., 14, fine, smooth sea, temperature 69°; Newcastle, S.E., 14, fine, smooth sea, temperature 70°; Port Macquarie, S., 28, showery, smooth sea, temperature 76°; Sydney, S.S.E., 16, fine, but cloudy, smooth sea, temperature 67°; Wentworth, calm, fine and warm, temperature 68°; Walgett, S.W., fine and clear, temperature 90°.

STATE OF RIVERS.

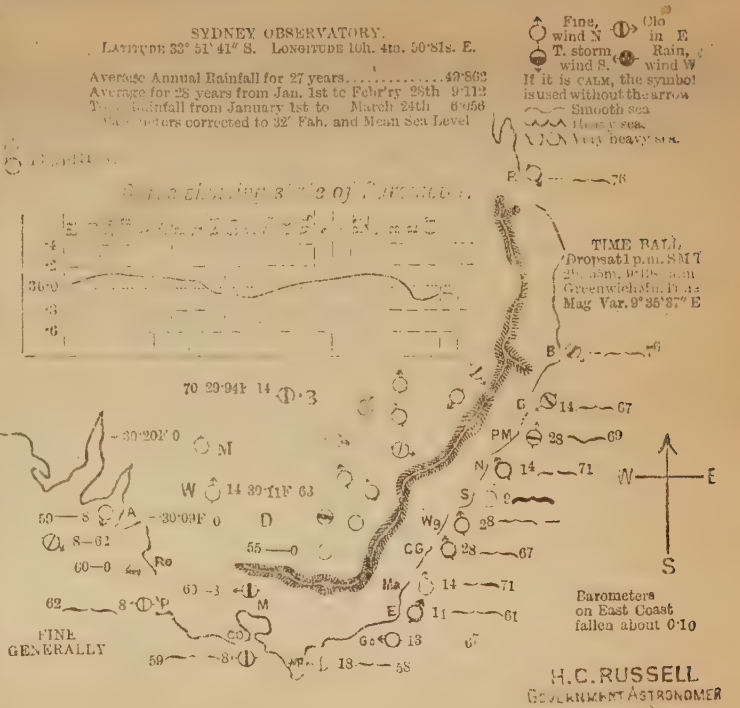
Murrumbidgee: At Wagga, 3 inches above summer level; at Hay, summer level; at Balranald, 3 feet above summer level. Murray: At Albury, 2 inches above summer level; at Euston, 6 inches above summer level. Darling: At Wentworth, 10 inches above summer level; at Wilcannia, 3 feet 9 inches above summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 25.

Sun rises at 6.7, sets at 6.6; Moon, 8.33 p.m., 8.41 a.m.; Mercury, 7.33 a.m., 6.46 p.m.; Venus, 3.12 a.m., 4.4 p.m.; Mars, 5.16 p.m., 4.19 a.m.; Jupiter, 6.4 p.m., 6.1 a.m.; Saturn, 1.9 p.m., 11.1 p.m. New moon 6th, full moon 20th.

High water at Fort Denison: 10.22 a.m., 10.42 p.m.

Stations	wt	Mx	Mn	Rain
Albury	b	85	48	0
Armidale	u	72	37	0
Balranald	b	98	51	0
Bathurst	b	77	44	0
Bend'm'r	c	76	66	0
Bodalla ..	b	76	—	0
Bourke ..	c	96	62	0
C'md'n H.	b	72	05	0·18
C. St. Geo.	c	71	55	0
Carcoar ..	b	72	37	0
Casino ..	c	84	64	0
Cassilis ..	g	74	—	0
Clarence	u	79	60	0
C'nd'b'lin	b	82	46	0
Cooma ..	b	80	37	0
Coonab'n	g	94	58	0
C'nam ble	u	—	—	0
Cowra ..	b	94	58	0
Deniliq'n	b	88	56	0
Dubbo ..	b	90	58	0
Eden	b	70	55	0
Euston ..	b	96	41	0
Forbes ..	b	90	57	0
Gl'n Inn's	c	80	59	0
Goulburn	b	76	42	0
Grafton ..	u	80	65	0·04
Ga.				
Gulgong	g	78	63	0
Gunned'h	—	—	—	—
Hay	b	85	48	0
Hill End	b	—	—	0
Inverell ..	b	86	48	0
Kiandra	u	63	37	0
Lismore	c	83	69	0
Maitland	b	77	58	0
Marsdens	b	88	61	0
Menindie	b	79	58	0
Molong ..	b	85	51	0
Moree ..	b	92	66	0
Moruya ..	b	71	58	0
Moss Vale	b	66	53	0
Mt. Hope	b	81	55	0
M. Vict'ria	b	66	47	0
Mudgee ..	c	87	51	0
M'rr'mb'bh	b	88	55	0
M'rr'ndi	c	78	54	0
Mus'br'k	b	80	53	0
Narrabri	b	90	58	0
Newcastle	b	73	62	0·02
Nowra ..	—	—	—	—
Orange ..	b	72	47	0
Picton ..	b	72	44	0
P. M'q'rie	c	76	46	0·01
P. St'ph'n	b	74	60	0
Q'nbeyan	b	68	50	0
Quirindi	g	98	65	0
Singleton	b	71	60	0
Sydney ..	b	71	60	0
Tamw'rth	b	85	62	0
Taralga ..	b	85	48	0·01
Taree	b	74	67	0
T'nt'rfield	g	81	59	0
Wagga ..	b	70	49	0
Walcha ..	g	68	55	0
Walgett ..	u	92	66	0
W'tnw'rth	b	83	50	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	74	60	0
Young ..	b	96	50	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; l, log; g, gloomy; h, hazy; m, misty; n, rainy; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours, M'n the corresponding minimum temperature; Rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Fa, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M., Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with E. and S.E. winds on west coast; cloudy, with fresh N.E. and S.E. winds on south coast; smooth sea, and no rain fallen. Extremes of barometers and temperature: 30·16 at Esperance Bay; 29·87 at Carnarvon; 97° at Ashburton; and 64° at Albany.

South Australia.—Generally fine, with light S.E. and S.W. winds; fallen barometers and smooth sea; cloudy about Wangoroo Island, and rain at M'Donnell Bay 0·01. Extremes of barometers and temperature: 30·09 and 62° at Cape Borda; 29·79 at Port Darwin, and 88°.

Victoria.—Generally cloudy and gloomy, with light west winds; fallen barometers, with smooth sea, mist, [illegible] 0·02 at Cape Otway, threatening at Wilson's Promontory; [illegible] barometers and temperature: 30·34 at Hor[illegible] Wilson's Promontory; 81° at Echuca; and 56° at [illegible].

Tasmania.—Generally cloudy and threatening, with rather strong westerly winds and fallen barometers; sea smooth in north, rough in south, where the weather is unsettled and threatening; rainfall at Southport 0·04. Extremes of barometers and temperature: 29·91 and 59° at Low Heads; 29·81 at Falmouth; and 54° at Southport and Hobart.

New Zealand.—Generally fine, with N.W. and S.W. winds and low barometers, extremes of which are 29·80 at Bluff, and 29·50 at Russell; passing showers at Russell, from S.W.

New South Wales.—Generally fine, with clouds in places near the mountains and in north coast districts, and light rain fallen about those places; winds generally northerly, and sea smooth. Extremes of barometers and temperature at 9 a.m.: 30·20 at Menindie, 29·90 at Eden, 79° at Walgett, and 53° at Cooma. Extra Stations: Bundarra, maximum 86°, minimum 57°, calm, cloudy, and warm; Morangarell, maximum 88°, minimum 55°, S., fine and calm; Bateman's Bay, light E. wind, fine weather, smooth sea, and temperature 60°. For further particulars see map.

Queensland.—Generally fine, with fallen barometers, E. and S.E. winds, and calm and moderate sea; rainfall at Cooktown, 1·05. Extremes of barometers and temperature: 30·09 at Brisbane, 29·21 at Townsville, 75° at Rockhampton, and 88° at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.W., 8, cloudy, temperature 63°; Cape Otway, S.S.E., 8, cloudy, with misty rain, smooth sea, temperature 60°; Lakes Entrance, S.W., 23, threatening in S.E., smooth sea, temperature 66°; Portland, S.S.E., 23, misty rain and smooth sea, temperature 61°; Wilson's Promontory, S.W., 34, light rain and squally, smooth sea, temperature 60°.

New South Wales.—Cape St. George, N., 28, fine, and smooth sea, temperature 76°; Clarence River, N.E., 14, fine, smooth sea, temperature 72°; Deniliquin, S., fine, temperature, 72°; Dubbo, W., fine, temperature 79°; Eden, E., 14, fine, smooth sea, temperature 70°; Fa'eman's Bay, calm and fine, smooth sea, temperature 74°; Goulburn, N.N.W., 14, fine, temperature 70°; Menindie, calm, fine and warm, temperature 76°; Moruya E.S.E., 14, fine, smooth sea, temperature 75°; Newcastle, N.N.E., fine, temperature 75°; Port Macquarie, N.N.E., 42, cloudy, smooth sea, temperature 75°; Sydney, E.N.E., 16, very fine, smooth sea, temperature, 74; Wentworth, S.W., 14, fine, smooth sea; temperature 74°.

STATE OF RIVERS.

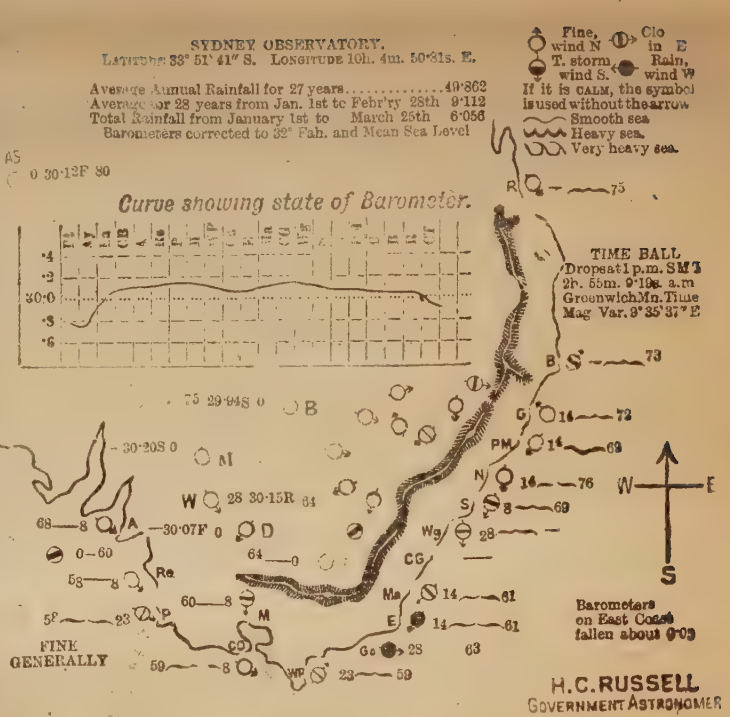
Murrumbidgee: At Wagga, 3 inches above summer level; at Balranald, 3 feet below summer level. Murray: At Albury, 2 inches above summer level; at Euston, summer level. Darling: At Wentworth, 10 inches above summer level; at Pooncarie, 8 inches above summer level; at Menindie, rising; at Wilcannia, 3 feet 5 inches above summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 25.

Sun rises at 6.8, sets at 6.4; Moon, 10.1 p.m., 10.41 a.m.; Mercury, 7.34 a.m., 6.41 p.m.; Venus, 3.8 a.m., 4 p.m.; Mars, 5.6 p.m., 4.8 a.m.; Jupiter, 5.55 p.m., 5.52 a.m.; Saturn, 1.1 p.m., 10.55 p.m. New moon 6th, full moon 20th.

High water at Fort Denison: 11.43 a.m., 11.43 p.m.

Stations	wt	Mx	mn	R'in
Albury	b	87	54	0
Armidale	b	78	56	0
Balranald	b	106	35	0
Bathurst	b	86	52	0
Bend'm'r	c	80	51	0
Bodalla ..	c	88	—	0
Bourke ..	b	99	57	0
C'md'n H.	c	76	60	0
C. St. Geo.	—	—	—	—
Carcoar ..	b	74	45	0
Casino ..	c	84	61	0
Cassilis ..	b	83	62	0
Clarence	b	89	67	0
C'nd'b'lin	b	86	47	0
Cooma ..	c	88	47	0
Coonab'n	b	90	54	0
C'nam ble	b	—	—	0
Cowra ..	b	92	60	0
Deniliq'n	g	93	51	0
Dubbo ..	—	—	—	—
Eden	r	72	59	0·32
Euston ..	b	99	54	0
Forbes ..	b	90	54	0
Gl'n Inn's	b	80	54	0
Goulburn	g	84	52	0
Grafton ..	b	82	62	0
Gulgong	b	81	64	0
Gunned'h	—	—	—	—
Hay	b	91	50	0
Hill End	b	—	—	0
Inverell ..	b	82	59	0
Kiandra	n	71	40	0
Lismore	c	83	66	0
Maitland	g	82	65	0
Marsdens	b	91	63	0
Menindie	b	86	63	0
Molong ..	b	91	64	0
Moree ..	b	88	68	0
Moruya ..	g	80	61	0·02
Moss Vale	u	79	57	0
Mt. Hope	b	71	62	0
M. Vict'ria	c	78	55	0
Mudgee ..	b	95	56	0
M'rr'm'bh	b	90	59	0
M'rr'r'ndi	b	80	62	0
Mus'br'k	b	90	65	0
Narrabri	b	90	61	0
Newcastle	b	80	68	0
Nowra ..	c	91	60	0
Orange ..	b	76	51	0
Picton ..	o	85	53	0
P. M'q'rie	b	77	01	0
P. St'ph'n	b	78	63	0
Q'nbeyan	c	74	54	0
Quirindi	b	86	68	0
Singleton	b	85	66	0
SYDNEY ..	g	76	67	0
Tamw'rth	b	87	60	0
Taralga ..	g	99	45	0
Taree	b	86	65	0
T'nt'rfield	b	78	56	0
Wagga ..	b	72	48	0
Walcha ..	u	74	50	0
Walgett ..	b	95	61	0
W'ntw'rth	b	92	56	0
Wilcannia	b	—	—	0
W'll'ng'ng	o	93	64	0
Young ..	n	99	54	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Mx gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light, variable winds and calm, falling barometers, and smooth sea. Extremes barometers and temperature: 29·95 at Gualdton; 29·59 and 85° at Cossack.

South Australia.—Generally cloudy on South coast, fine inland and in North, with light winds from S. and E., steady barometers and smooth sea. Rainfall at M'Donnell Bay, 0·36; and at Robe, 0·09. Extremes of barometers and temperature: 30·12 at Alice Springs; 29·84 and 87° at Port Darwin; and 58° at Robe.

Victoria.—Generally fine, but cloudy, with fresh easterly winds and risen barometers, misty and rough sea at Wilson's Promontory, hazy at Cape Otway. Rainfall: Horsham, 0·26; Portland, 0·19; Melbourne, 0·33; Lakes Entrance, 0·32; and Gabo, 0·14. Extremes of barometers and temperature: 30·15 at Cape Otway; and 58°, 29·98 at Echuca; and 67° at Horsham.

Tasmania.—Generally fine, with N.W. winds on East Coast, E. and S.E. winds on North coast, risen barometers and smooth and moderate sea. Extremes of barometers and temperature: 30·17 at Southport; and 52°, 30·12 at Circular Head, and 58°. No rain fallen.

New Zealand.—Generally cloudy, with low barometers, N.E. winds and calm; passing shower from South at Bluff. Extremes of barometers: 29·60 at Bluff: 29·50 at Russell.

New South Wales.—Generally unsettled and threatening on coast, with light winds from S.E. and S.W., fallen barometer, and smooth sea; raining at Gabo, Bateman's Bay, and Eden. Inland generally, fine and calm. Rainfall at Gabo, 0.20. Extra stations:—Bundarra, max. 84, min. 52, calm, warm, and hazy; Morangrretta, max. 88, min. 62, S.E. wind, light and fine weather. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.W., 18, fine but cloudy, temperature 64°; Cape Otway, E., 8, fine but hazy, smooth sea, temperature 67°; Lakes Entrance, E., 23, squally, cloudy, moderate sea, temperature 65°; Portland, E.S.E., 18, fine, smooth sea, temperature 63°; Wilson's Promontory, N.E., 23, cloudy and misty, rough sea, temperature 59°.

New South Wales.—Clarence River, N.E., 28, fine, smooth sea, temperature 77°; Deniliquin, calm, fine, temperature 72°; Eden, E., 28, raining, light sea, temperature 63°; Goulburn, E., fine, temperature 70°; Newcastle, S.E., 14, raining, smooth sea, temperature 74°; Port Macquarie, S., 14, cloudy and sultry, with thunder, smooth sea, temperature 83°; Sydney, E., 8, heavy thunderstorm and showers, smooth sea, temperature 67; Wentworth, S.W., fine and clear, temperature 73°.

STATE OF RIVERS.

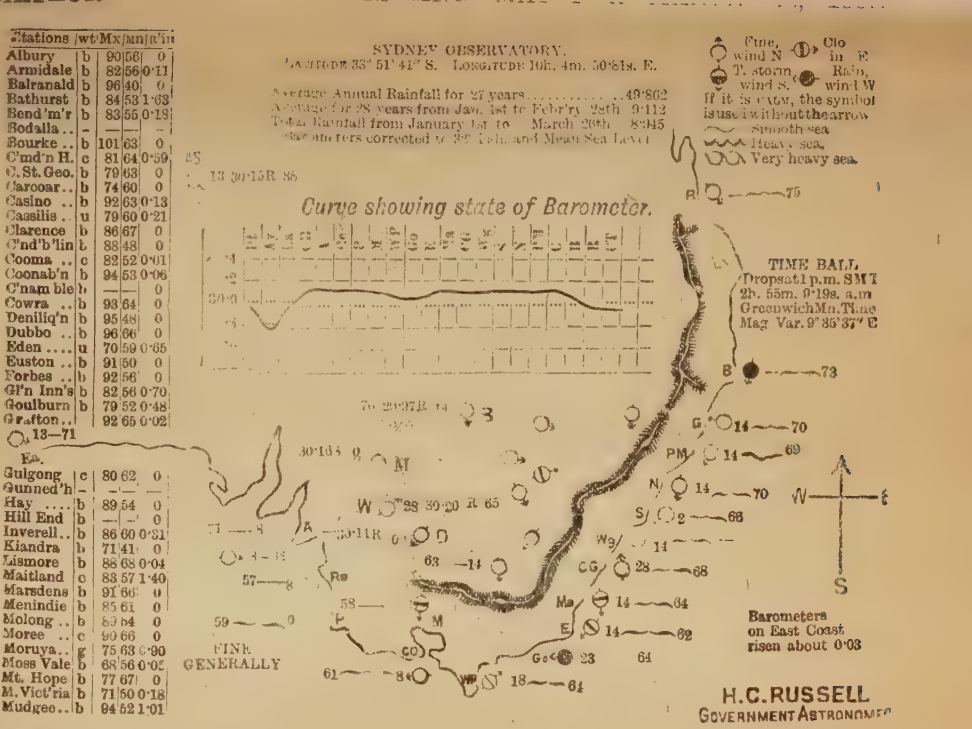
Murrumbidgee: At Wagga, 3 inches above summer level; at Balranald, 3 feet above summer level. Murray: At Albury, 1 inch above summer level; at Euston, 3 inches above summer level. Darling: At Wentworth, 1 foot above summer level; at Pooncarie, low; at Menindie, 1 foot 6 inches above summer level; at Wilcannia, 3 feet above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR MARCH 26.

Sun rises at 6.9, sets at 6.2; Moon, 10.49 p.m., 11.37 a.m.; Mercury, 7.34 a.m., 6.38 p.m.; Venus, 3.6 a.m., 3.58 p.m.; Mars, 5.1 p.m., 4.3 a.m.; Jupiter, 5.51 p.m., 5.47 a.m.; Saturn, 12.57 p.m., 10.49 p.m. New moon 6th, full moon 20th.

High water at Fort Denison: 12.4 a.m., 12.25 p.m.

Stations	wt	Mx	mn	r/n
Albury	b	90	56	0
Armidale	b	82	56	0·11
Balranald	b	96	40	0
Bathurst	b	84	53	1·03
Bend'm'r	b	83	55	0·13
Bodalla ..	–	—	—	–
Bourke ..	b	101	63	0
C'md'n H.	c	81	64	0·59
C. St. Geo.	b	79	63	0
Carcoar ..	b	74	60	0
Casino ..	b	92	63	0·13
Cassilis ..	u	79	60	0·21
Clarence	b	86	67	0
C'nd'b'lin	b	88	48	0
Cooma ..	c	82	52	0·01
Coonab'n	b	94	53	0·06
C'nam ble	b	—	—	0
Cowra ..	b	93	64	0
Deniliq'n	b	95	48	0
Dubbo ..	b	96	66	0
Eden	u	70	59	0·65
Euston ..	b	91	50	0
Forbes ..	b	92	56	0
Gl'n Inn's	b	82	56	0·70
Goulburn	b	79	52	0·48
Grafton ..		92	65	0·02
Gulgong	c	80	62	0
Gunned'h	–	—	—	—
Hay	b	89	54	0
Hill End	b	—	—	0
Inverell ..	b	86	60	0·51
Kiandra	b	71	41	0
Lismore	b	88	68	0·04
Maitland	c	83	57	1·40
Marsdens	b	91	66	0
Menindie	b	85	61	0
Molong ..	b	85	54	0
Moree ..	c	90	66	0
Moruya ..	g	75	63	0·90
Moss Vale	b	68	56	0·05
Mt. Hope	b	77	67	0
M. Vict'ria	b	71	50	0·18
Mudgee ..	b	94	52	1·01
M'rr'm'bh	b	90	62	0
M'rr'r'ndi	f	78	59	0·05
Mus'lbr'k	b	84	54	0·28
Narrabri	b	94	58	0
Newcastle	b	81	61	1·06
Nowra ..	b	71	47	0·12
Orange ..	b	77	56	0·09
Picton ..	b	74	59	0·53
P. M'q'rie	b	82	61	1·95
P. St'ph'n	b	80	57	0·35
Q'nbeyan	b	77	57	0
Quirindi	b	90	64	0·14
Singleton	b	83	61	0·45
Sydney ..	b	74	60	2·89
Tamw'rth	b	93	57	0·14
Taralga ..	b	72	55	0
Taree	b	86	63	0·30
T'nt'rfield	b	88	55	0·04
Wagga ..	b	70	53	0
Walcha ..	b	77	50	0·20
Walgett ..	b	95	66	0
W'ntw'rth	b	85	57	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	78	59	2·53
Young ..	b	99	54	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky, c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and gloomy, with light S. and W. winds and calm; rainfall at Esperance Bay, 0·08; moderate sea. Extremes of barometers and temperature: 30·04 at Geraldton; 29·77 at Albany, 87° at Cossack; and 67° at Esperance Bay.

South Australia.—Generally fine and warm, with light S.E. and E. winds, risen barometers, and smooth sea. Extremes of barometers and temperature: 30·15 at Alice Springs, and 88°; 29·85 at Port Darwin; and 55° at M'Donnell Bay. No rain fallen.

Victoria.—Generally fine, with light variable winds, fallen barometers, and moderate sea; hazy, misty, and squally on S.E. coast, with light misty rain at Lakes Entrance; rainfall at Wilson's Promontory, 0·03. Extremes of barometers and temperature: 30·14 at Cape Otway; 30·05 at Wilson's Promontory; 59° at Portland; and 66° at Horsham.

Tasmania.—Generally fine, but cloudy, with light westerly winds, risen barometers, and dead calm sea. Extremes of barometers and temperature: 30·13 at Low Heads; 30·05 at Falmouth; 63° at Low Heads; and at Southport. No rain fallen.

New South Wales.—Generally fine, with light S.E. and S. winds and calm; barometer risen slightly, and sea smooth. Yesterday the rain was general along the whole coast-line and near the mountains, and heavy thunder and lightning occurred about Sydney, Tamworth and Mudgee. The heaviest rain fell at Sydney, then follow Wollongong, Port Macquarie, Bathurst, and Bodalla. Extra stations:—Bodalla, max. 74, min. 60, rain 1.77, and fine weather. Bundarra, max. 88, min. 53, rain 0.10, fine and hazy. Morangarell, max. 88, min. 60, and fine weather. For further particulars see map.

Queensland.—Showery at Brisbane. Rainfall 0·01; heavy rain at Townsville, dense fog at Cooktown, and fine at Rockhampton; barometers fallen and sea moderate. Extremes of barometer and temperature: 30·04 at Brisbane and 76°, 29·70 at Townsville, and 89° at Cooktown.

New Zealand.—Generally fine, with light E. and S.E. winds, and low barometers. Extremes of barometers and temperature: 29·80 and 62° at Russell; 29·40 at Wellington; and 59° at Bluff.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.W., 13, fine, temperature 7°; Cape Otway, E., 8, fine and misty, smooth sea, temperature 63°; Lakes Entrance, W., 8, fine, smooth sea, temperature 69°; Portland, S., 28, fine but cloudy, smooth sea, temperature 63°; Wilson's Promontory, W.S.W., 18, squally and hazy, moderate sea, temperature 64°.

New South Wales.—Cape St. George, N., 14, fine; Clarence River, S.E., 14, fine, smooth sea, temperature 73°; Deniliquin, calm, fine, temperature 78°; Dubbo, E., 14, fine, temperature 80°; Eden, N.E., 14, fine, smooth sea, temperature 68°; Goulburn, calm, fine, temperature 70°; Menindie, calm, fine, temperature 81°; Moruya, N.E., 28, fine, smooth sea, temperature 74°; Newcastle, E., 14, fine, smooth sea, temperature 72°; Port Macquarie, S., 14, fine, temperature 81°; Sydney, E., 11, fine, smooth sea, temperature 71; Wentworth, S.W., fine, temperature 73°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 3 inches above summer level; at Balranald, 3 feet above summer level. Murray: At Albury, summer level; at Euston, 2 inches above summer level. Darling: At Wentworth, 1 foot above summer level; at Pooncarie, low; at Menindie, 2 feet above summer level; at Wilcannia, 3 feet above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR MARCH 26.

Sun rises at 6.9, sets at 6.1; Moon, 11.38 p.m., 12.29 a.m.; Mercury, 7.34 a.m., 6.36 p.m.; Venus, 3.4 a.m., 3.56 p.m.; Mars, 4.46 p.m., 3.57 a.m.; Jupiter, 5.47 p.m., 5.43 a.m.; Saturn, 12.53 p.m., 10.45 p.m. New moon 6th, full moon 20th.

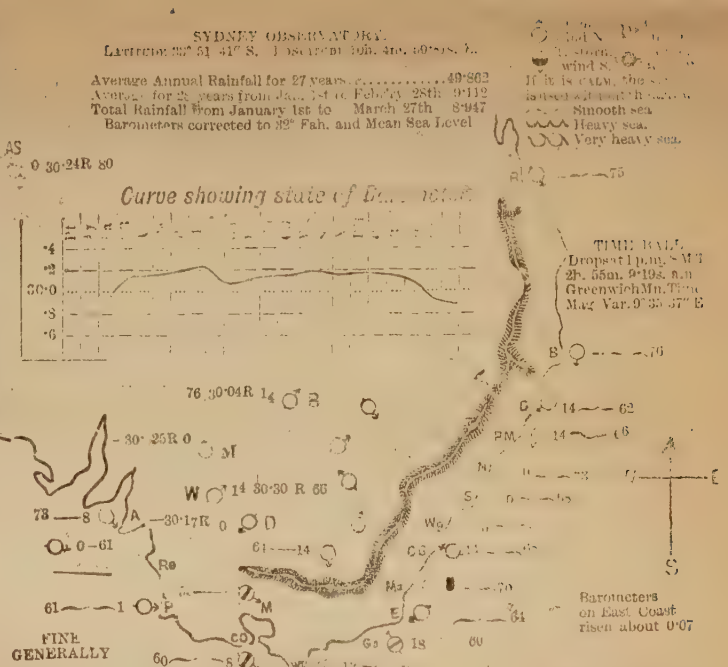
High water at Fort Denison: 12.49 a.m., 1.12 p.m.

Stations	wt	Mx	mn	r'fn
Albury	b	90	55	0
Armidale	b	80	47	0·12
Balranald	b	99	39	0
Bathurst	b	81	51	0
Bend'm'r	b	76	65	0
Bodalla	b	80	—	0
Bourke	b	98	58	0
C'md'n H.	—	—	—	—
C. St. Geo.	b	78	60	0
Carcoar	b	74	63	0
Casino	b	89	58	0
Cassilis	c	75	61	0·14
Clarence	t	85	63	0
C'nd'b'lin	b	85	48	0
Cooma	c	87	49	0
Coonab'n	b	88	48	0
C'nam ble	c	—	—	0
Cowra	b	95	61	0
Deniliq'n	b	92	47	0
Dubbo	b	94	58	0
Eden	b	70	60	0
Euston	b	96	45	0
Forbes	b	89	59	0
Gl'n Inn's	b	82	52	0·30
Goulburn	f	83	50	0
Grafton	b	87	61	0·15
Gulgong	b	78	63	0
Gunned'h	—	—	—	—
Hay	b	88	53	0
Hill End	b	—	—	0
Inverell	b	83	53	1·16
Kiandra	n	73	32	0
Lismore	b	88	63	0
Maitland	c	76	63	0
Marsdens	b	90	65	0
Menindie	b	85	63	0
Molong	b	91	b7	0
Moree	b	96	60	0
Moruya	b	77	59	0
Moss Vale	b	75	54	0
Mt. Hope	b	73	62	0
M.Vict'ria	b	71	49	0
Mudgee	b	89	54	0
M'rr'm'bh	b	92	60	0
M'rr'r'ndi	f	76	55	0
Mus'br'k	g	79	57	0
Narrabri	b	96	60	0
Newcastle	b	78	65	0
Nowra	b	78	54	0
Orange	f	75	50	0
Picton	b	80	52	0
P. M'q'rie	b	78	59	0
P. St'ph'n	b	76	59	0
Q'nbeyan	b	76	59	0
Quirindi	b	92	60	0
Singleton	g	74	64	0
Sydney	h	74	61	0
Tamw'rth	—	—	—	—
Taralga	b	86	52	0
Taree	b	83	63	0·02
T'nt'rfield	c	85	51	0·34
Wagga	b	75	58	0
Walcha	f	77	47	0·28
Walgett	b	91	63	0
W'ntw'rth	b	89	55	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	79	60	0
Young	b	101	53	0

SYDNEY OBSERVATORY.

Latitude 33° 51′ 41″ S. Longitude 10h. 4m. 49·9s. E.

Average Annual Rainfall for 27 years.....49·802
Average for 28 years from Jan. 1st to Febry. 28th 0·112
Total Rainfall from January 1st to March 27th 8·947
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'fn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Coolgardie: Pt, Perth; Ay, Albany; Eg, Eucla; CB, Cape Borda; A, Adelaide; Ge, Geelong; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy, with light variable winds and calm, and moderate sea; thunderstorm and showers; rainfall 0·09 at Esperance Bay; gloomy at Geraldton. Extremes of barometers and temperature: 30·12 at Geraldton, 29·97 at Ashburton, 81° at Carnarvon, and 63° at Albany.

South Australia.—Generally fine and warm, with light southerly winds and calm; almost steady barometers, and smooth sea. Extremes of barometers and temperature: 30·24 at Alice Springs, 29·84 at Port Darwin and 88°, and at Cape Borda 66° No rain reported.

Victoria.—Generally cloudy, with light westerly winds and calm; risen barometers, and smooth sea; heavy rain at Omeo; foggy, misty, and heavy dew along the coast. Extremes of barometers and temperature: 30·25 and 59° at Melbourne, 30·13 at Wilson's Promontory, and 65° at Horsham.

Tasmania.—Generally fine, but cloudy, with light N. and N.W. winds and calm; risen barometers, and smooth sea. Extremes of barometers and temperature: 30·16 at Low Heads 30·12 and 62° at Southport, and 56° at Circular Head. No rain fallen.

New Zealand.—Generally fine, with light westerly winds; risen barometers, and smooth sea; passing showers. Barometer 29·70, and temperature 52° at Bluff; rain last night at Wellington measured 0·92; cloudy at Gisborne, 29·50; strong W. wind, and 55°, 29·80, and 60° at Russell.

Queensland.—Generally fine, with light S. and E. winds and calm; risen barometers and moderate sea; threatening at Townsville. Rainfall at Brisbane 0·15, at Cape Moreton 0·75, and at Townsville 0·21. Extremes of barometers and temperature: 30·13 at Brisbane, 29·77 and 75° at Townsville, and 91° at Cooktown.

New South Wales.—Generally fine, calm, and cool with clouds, fog, haze, and heavy dew in places; risen barometer and smooth sea. Light rain fallen in north-east districts; heaviest at Inverell and Tenterfield. Extremes of barometers and temperature at 9 a.m.: 30·30 at Wentworth, 30·04 and 76° at Bourke, and 76° at Goulburn. Extra stations:—Bundarra, max. 86°, min. 50°, rain 0·03, fine weather; Morangarell, max. 90°, min. 56°, S. wind, and fine weather. For further particulars see map.

9 P.M. OBSERVATIONS.

Victoria.—Cape Otway, E., 8, fine, smooth sea, temperature 65°. Portland, E.S.E., 18, fine, smooth sea, temperature 65°; Wilson's Promontory, S.W., 18, cloudy, smooth sea, temperature 64°.

New South Wales.—Cape St. George, N., 16, fine; Clarence River, S.E., 28, fine, smooth sea, temperature 79°; Deniliquin, calm, fine, temperature 78°; Dubbo, calm, fine, temperature 81°; Eden, N.E., 14, fine, little sea, temperature 70°; Goulburn, N.W., 10, fine, temperature 74°; Menindie, E.S.E., 14, clear, fine, temperature 80°; Moruya, S.E., 28, cloudy, smooth sea, temperature 76°; Newcastle, E., 10, fine, smooth sea, temperature 73°; Port Macquarie, E., 10, sultry, temperature 80°; Sydney, N.E., 20, fine, smooth sea, temperature 72; Wentworth, W., 14, fine, warm, temperature 76°; Walgett, calm, fine, clear, temperature 87°.

STATE OF RIVERS.

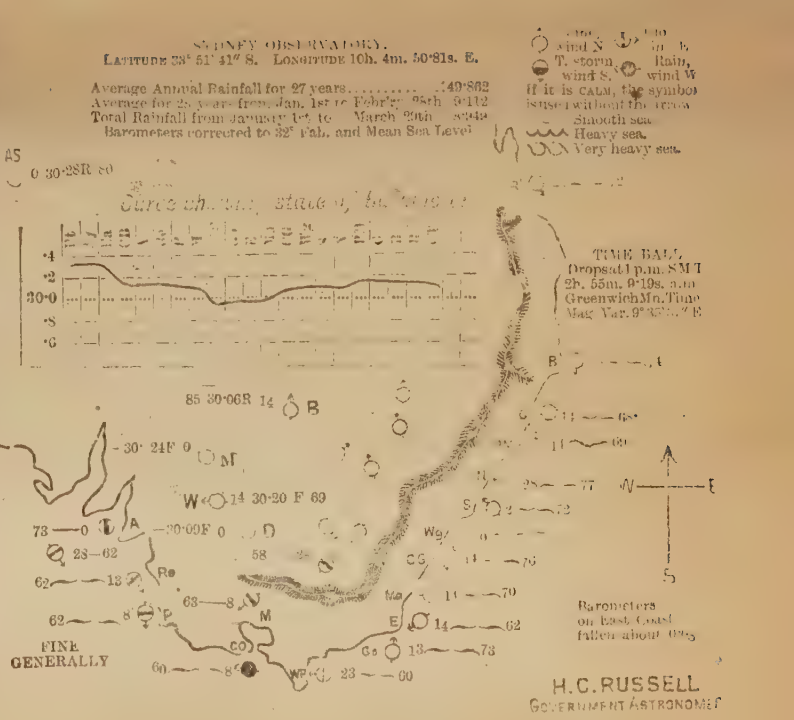
Murrumbidgee: At Wagga, 3 inches above summer level; at Balranald, low. Murray: At Albury, summer level. Darling: At Wentworth, 1 foot above summer level; at Pooncarie, low; at Menindie, 3 feet above summer level; at Wilcannia, 2 feet 9 above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR MARCH 29.

Sun rises at 6.11, sets at 5.58; Moon, 12.28 a.m., 2.2 p.m.; Mercury, 7.32 a.m., 6.29 p.m.; Venus, 3.2 a.m., 3.51 p.m.; Mars, 4.48 p.m., 3.47 a.m.; Jupiter, 5.38 p.m., 5.34 a.m.; Saturn, 12.47 p.m., 10.39 p.m. New moon 6th, full moon 20th.

High water at Fort Denison, March 29: 2.43 a.m., 3.16 p.m.

Stations	wt	Maximum	Min'm	Rain
Albury	c	95	53	0
Armidale	b	79	48	0
Balranald	b	102	39	0
Bathurst	b	89	51	0
Bend'm'r	b	80	65	0
Bodalla ..	b	87	—	0
Bourke ..	b	102	68	0
C'md'n H.	c	79	65	0
C. St. Geo.	b	81	65	0
Carcoar ..	b	76	54	0
Casino ..	b	86	53	0
Cassilis ..	b	82	61	0
Clarence	b	88	62	0
C'nd'b'lin	b	91	49	0
Cooma ..	c	94	41	0
Coonab'n	b	92	51	0
C'nam ble	b	—	—	0
Cowra ..	b	97	63	0
Deniliq'n	b	100	46	0
Dubbo ..	b	95	55	0
Eden	b	72	60	0
Euston ..	b	108	51	0
Forbes ..	b	—	57	0
Gl'n Inn's	b	87	52	0
Goulburn	b	91	48	0
Grafton ..	b	92	62	0
Ga.				
Gulgong	b	80	64	0
Gunned'h	—	—	—	—
Hay	b	98	57	0
Hill End	b	—	—	0
Inverell ..	b	88	52	0
Kiandra	b	77	32	0
Lismore	b	89	60	0
Maitland	b	82	64	0
Marsdens	b	96	65	0
Menindie	b	94	67	0
Molong ..	b	92	60	0
Moree ..	b	95	64	0
Moruya ..	b	81	60	0
Moss Vale	b	83	59	0
Mt. Hope	b	79	62	0
M. Vict'ria	b	81	56	0
Mudgee ..	b	94	53	0
M'rr'm'bh	b	95	58	0
M'rr'ndi	b	82	56	0
Mus'br'k	b	89	60	0
Narrabri	b	90	58	0
Newcastle	b	80	65	0
Nowra ..	—	—	—	—
Orange ..	b	77	50	0
Picton ..	b	87	55	0
P. M'q'rie	b	78	57	0
P. St'ph'n	b	80	60	0
Q'nbeyan	b	83	55	0
Quirindi	b	103	64	0
Singleton	b	84	61	0
SYDNEY ..	h	78	64	0
Tamw'rth	b	89	55	0
Taralga ..	b	91	61	0
Taree	b	86	60	0
T'nt'rfield	d	80	53	0
Wagga ..	g	71	50	0
Walcha ..	b	77	48	0
Walgett ..	b	91	62	0
W'ntw'rth	b	100	61	0
Wilcannia	b	—	—	0
Wil'ng'ng	b	82	60	0
Young ..	b	102	52	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. Min the corresponding minimum temperature for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—P, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Currens River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures, at Albury, Deniliquin, Wentworth Menindie, Bourke, and Wilcannia Springs. The barometer curve enables one at a glance to trace the depressions beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy, with southerly winds, high barometers, and moderate sea; rainfall at Esperance Bay, 0·28. Extremes of barometers and temperature: 30·31 at Albany, 29·99 at Ashburton, 80° at Carnarvon, and 62° at Perth.

South Australia.—Generally cloudy, with light southerly winds, fallen barometers, and smooth sea. Rainfall at Port Darwin, 0·27. Extremes of barometers and temperature: 30·28 at Alice Springs, 29·92 and 85° at Port Darwin, and 59° at M'Donnell Bay.

Victoria.—Generally cloudy, gloomy, and threatening, with light variable winds, fallen barometers, and smooth sea; misty rain from west at Cape Otway; squally at Wilson's Promontory. Extremes of barometers and temperature: 30·10 at Cape Otway, 29·94 at Wilson's Promontory, 79° at Echuca, and 57° at Lakes Entrance.

Tasmania.—Generally gloomy and threatening, with light variable winds and calm; fallen barometers, and smooth sea. Rainfall at Southport and Hobart, 0·09. Extremes of barometers and temperature: 29·95 at Low Heads, 29·90 at Hobart, 61° at Falmouth, and 58° at Southport.

New Zealand.—Generally fine, with light N.W. and S.W. winds; strong from N.W. at Gisborne; risen barometers and smooth sea. Extremes of barometers and temperature: 30·10 at Russell, 30·50 and 50° at Bluff, and 63° at Wellington.

New South Wales.—Generally fine and warm, with light variable winds and calm, fallen barometers and smooth sea. No rain fallen. Extremes of barometers and temperature at 9 a.m.: 30·24 at Menindie, 29·94 at Eden, 85° at Bourke, and 51° at Cooma. Extra stations:—Bundarra, max. 84°, min. 52°, calm, fine, and clear; Morangarell, max. 94°, min. 58°, N.W. wind, and fine weather. For further particulars see map.

Queensland.—Generally fine, with light southerly winds, risen barometers, and moderate sea. Rainfall at Cooktown, 2·40. Extremes of barometers and temperature: 30·17 at Brisbane, 29·84 at Townsville 91° at Cooktown, and 72° at Rockhampton.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 13, cloudy and threatening, temperature 63°; Cape Otway, W.S.W., 8, light misty rain and foggy, smooth sea, temperature 58°; Lake Entrance, E., 3, cloudy, smooth sea, temperature 67°; Portland, W., Wilson's Promontory, W., 23, cloudy, threatening, and squally, moderate sea, temperature 64°.

New South Wales.—Cape St. George, N., 14, fine, smooth sea, temperature 84°; Deniliquin, W.S.W., 28, cloudy, like change, temperature 87°; Dubbo, W., 28, fine, temperature 82°; Eden, N.E., 14, fine, smooth sea, temperature 80°; Goulburn, N.W., fine, temperature 78°; Menindie, calm, fine and hot, temperature 85°; Moruya, N.E., 14, fine and sultry, smooth sea, temperature 81°; Newcastle, N.E., 14, fine, smooth sea, temperature 80°; Port Macquarie, N.N.E., 42, fine, smooth sea, temperature 78°; Sydney, N.E., 12, fine and very hot, smooth sea, temperature 85°; Wentworth, W.S.W., 14, sultry, dull, and hot, temperature 87°; Walgett, N.E., fine and hot, temperature 93°.

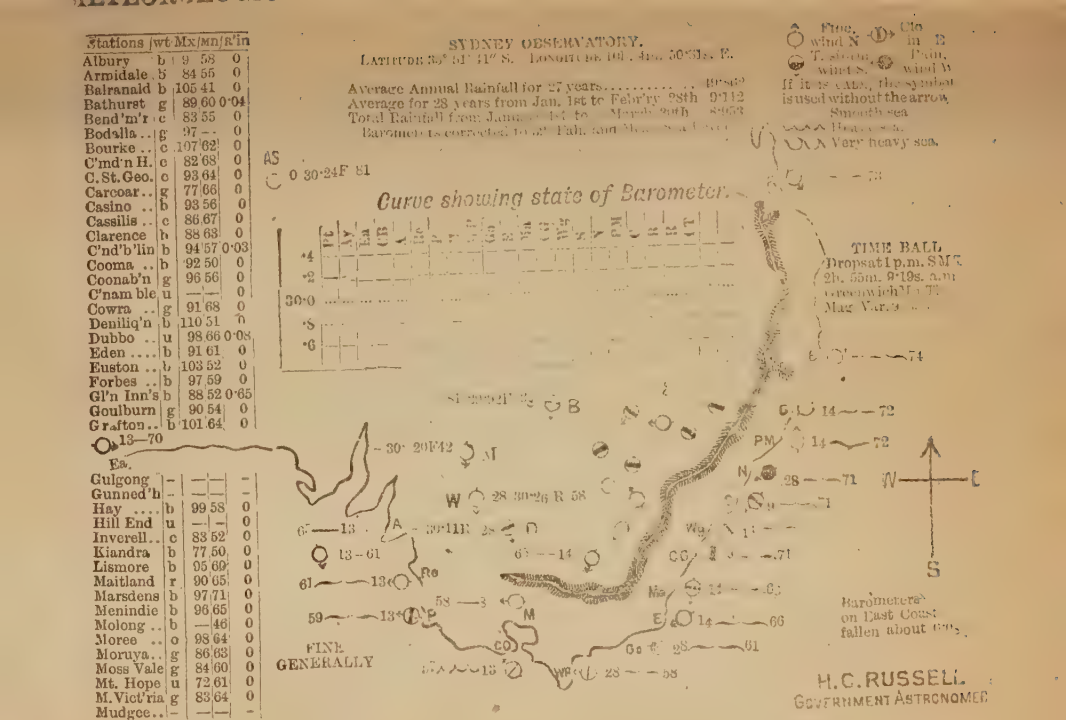
STATE OF RIVERS.

Murrumbidgee: At Wagga, 3 inches above summer level; at Hay, below summer level; at Balranald, 3 feet below summer level. Murray: At Albury, summer level; at Euston, low. Darling: At Wentworth, 11 inches above summer level; at Pooncarie, low; at Menindie, 3 feet above summer level; at Wilcannia, 2 feet 6 inches above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR MARCH 30.

Sun rises at 6.12, sets at 5.57; Moon, 1.20 a.m., 2.42 p.m.; Mercury, 7.29 a.m., 6.25 p.m.; Venus, 3 a.m., 3.52 p.m.; Mars, 4.43 p.m., 3.42 a.m.; Jupiter, 5.33 p.m., 5.29 a.m.; Saturn, 12.43 p.m., 10.35 p.m. New moon 6th, full moon 20th. High water at Fort Denison, March 30: 3.51 a.m., 4.25 p.m.

Stations	wt	Mx	Mn	R'in
Albury	b	9 58	0	
Armidale	b	84 55	0	
Balranald	b	105 41	0	
Bathurst	g	89 60	0·04	
Bend'm'r	c	83 55	0	
Bodalla ..	g	97 --	0	
Bourke ..	c	107 62	0	
C'md'n H.	c	82 68	0	
C. St. Geo.	c	93 64	0	
Carcoar ..	g	77 66	0	
Casino ..	b	93 56	0	
Cassilis ..	c	86 67	0	
Clarence	h	88 63	0	
C'nd'b'lin	b	94 57	0·03	
Cooma ..	b	92 50	0	
Coonab'n	g	96 56	0	
C'nam ble	u	-- --	0	
Cowra ..	g	91 68	0	
Deniliq'n	b	110 51	0	
Dubbo ..	u	98 66	0·08	
Eden	b	91 61	0	
Euston ..	b	103 52	0	
Forbes ..	b	97 59	0	
Gl'n Inn's	b	88 52	0·65	
Goulburn	g	90 54	0	
Grafton ..	b	101 64	0	
Ea.				
Gulgong	-	-- --	-	
Gunned'h	-	-- --	-	
Hay	b	99 58	0	
Hill End	u	-- --	0	
Inverell ..	c	83 52	0	
Kiandra	b	77 50	0	
Lismore	b	95 69	0	
Maitland	r	90 65	0	
Marsdens	b	97 71	0	
Menindie	b	96 65	0	
Molong ..	b	-- 46	0	
Moree ..	o	98 64	0	
Moruya ..	g	86 63	0	
Moss Vale	g	84 60	0	
Mt. Hope	u	72 61	0	
M. Vict'ria	g	83 64	0	
Mudgee ..	-	-- --	-	
M'rr'm'bh	b	98 46	0	
M'rr'ndi	c	85 61	0	
Mus'br'k	u	93 63	0·01	
Narrabri	b	90 68	0	
Newcastle	r	91 70	0	
Nowra ..	-	-- --	-	
Orange ..	g	79 59	0	
Picton ..	o	91 59	0	
P. M'q'rie	o	77 62	0	
P. St'ph'n	c	81 63	0	
Q'nbeyan	b	85 61	0	
Quirindi	g	100 69	0	
Singleton	r	92 65	0	
Sydney ..	c	89 69	0	
Tamw'rth	g	92 57	0	
Taralga ..	b	93 53	0	
Taree	b	92 64	0	
T'nt'rfield	d	82 54	0	
Wagga ..	b	90 63	0	
Walcha ..	g	81 51	0	
Walgett ..	u	94 69	0	
W'ntw'rth	b	100 54	0	
Wilcannia	c	-- --	0	
W'll'ng'ng	g	86 63	0	
Young ..	b	102 60	0	



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b signifying bright sunny; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; o, overcast; r, passing showers; r, rain; s, snow; t, thunder; u, unsettled; -, no report. The next column, Mx, gives the maximum temperature for previous 24 hours. The next column, Mn, the minimum temperature for the night. Rain for the previous 24 hours. The next column, R'in, the corresponding rainfall. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CE, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Perth: Cloudy and gloomy, E. wind; barometer, 30·08; temperature, 67°. Esperance Bay: Cloudy and threatening, fresh E. wind, 30·24 and 63°; sea moderate.

South Australia.—Generally fine, with light southerly winds, risen barometers, and smooth sea. Rainfall: Robe, 0·05; Cape Borda, 0·05; M'Donnell Bay, 0·02; Port Lincoln, 0·04; Daly Waters, 0·64; and Port Darwin, 1·55. Extremes of barometers and temperature: 30·27 at Eucla and Streaky Bay, 29·93 and 84° at Port Darwin, and 61° at Cape Borda.

Victoria.—Generally gloomy and cloudy, with fresh westerly winds, steady barometers, and moderate sea; except at Cape Otway, where it is rough, with threatening and misty weather. Rainfall: Horsham, 0·03; Melbourne, 0·28; Cape Otway, 0·06; Wilson's Promontory, 0·20; and Lake Entrance, 0·14. Extremes of barometers and temperature: 30·10 at Melbourne, 29·94 at Wilson's Promontory, 70° at Horsham, and 57° at Cape Otway.

Tasmania.—Generally cloudy and gloomy, with fresh winds from N.W. and S.W., fallen barometers, and smooth sea. Extremes of barometers and temperature: 29·96 and 61° at Circular Heads 29·71 at Southport, and 54° at Hobart.

New Zealand.—Generally fine, with light easterly winds, smooth sea, and barometers risen generally to 30·00. Extremes of temperature: 67° at Russell, and 48° at Bluff.

New South Wales.—Generally unsettled and threatening, with southerly winds, fallen barometers, and smooth sea; light rain fallen in places of country near the main range, between Condobolin and Inverell, and at 9 a.m. it was raining at Maitland, Newcastle, Singleton, and Gabo Island. Extremes barometers and temperature: 30·26 at Wentworth, 29·92 at Eden and Bourke, 81 at Walgett and Bourke, and 58° at Wentworth. Extra stations:—Bundarra, max. 84°, min. 56°, fine, calm, cloudy, and cool; Morangarell, max. 97°, min. 70°, W. wind and fine; Gabo Island, rainfall 0·59, at 9 a.m. passing showers and moderate sea. For further particulars see map.

Queensland.—Generally fine, with N.E. wind in South, and S.E. wind in North; barometers fallen, and sea moderate: no rain fallen. Extremes of barometers and temperature: 30·09 at Brisbane, 29·80 at Townsville 91° at Cooktown, and 73° at Rockhampton.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, W.S.W., 13, cloudy and gloomy, temperature 65°; Cape Otway, W., 18, cloudy and foggy, rough sea, temperature 62°; Lake Entrance, W., 28, fine but cloudy, moderate sea, temperature 64°; Portland, W., 34, fine and smooth, temperature 64; Wilson's Promontory, W., 28, cloudy and squally, moderate sea, temperature 60.

New South Wales.—Cape St. George, E., 14, fine, smooth sea, temperature 70°; Clarence River, N.E., fine, temperature 78°; Deniliquin, S.W., 28, fine and cool, temperature 74°; Dubbo, N.W., 14, fine, temperature 82°; Goulburn, N.W., 14, fine, temperature 77°; Menindie, S.W., 28, fine and warm, temperature 75°; Moruya, S.E., 42, showery, smooth sea, temperature 64°; Newcastle, N.E., 14, dull, smooth sea, temperature 74°; Port Macquarie, S., 14, overcast and sultry, smooth sea, temperature 80°; Sydney, E.S.E., 12, fine but hazy, smooth sea, temperature 74°; Wentworth, S., 42, fine and cool, temperature 70°; Walgett, S.W., fine and hot, temperature 94°; Balranald, S., 28, fine; Euston, S.W., fine, clear, and cool.

STATE OF RIVERS.

Murrumbridgee: At Hay, below summer level; at Balranald 3 feet below summer level. Murray: At Albury, summer level; at Euston, low. Darling: At Wentworth, 11 inches below summer level; at Pooncarie, low; at Menindie, 2 feet 10 above summer level.

ASTRONOMICAL MEMORANDA FOR MARCH 31.

Sun rises at 6.13, sets at 5.55; Moon, 2.12 a.m., 3.22 Mercury, 7.26 a.m., 6.21 p.m.; Venus, 2.59 a.m., 3.51 Mars, 4.39 p.m., 3.37 a.m.; Jupiter, 5.29 p.m., 5.2 Saturn, 12.40 p.m., 10.32 p.m. New moon 6th, full moon

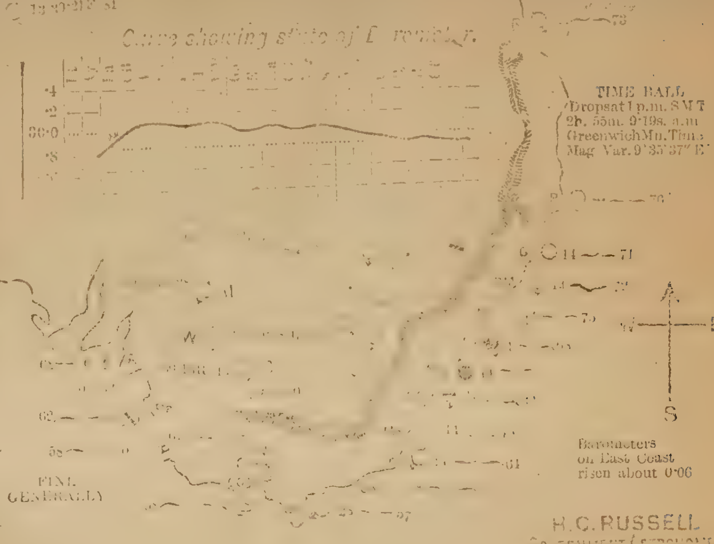
High water at Fort Denison, March 31: 4.58 a.m., 5.30 p.m.

Stations	wt	Mx	mn	r'n
Albury	b	80	52	0
Armidale	b	81	53	0·13
Balranald	b	82	39	0
Bathurst	b	87	41	0
Bend'm'r	b	75	55	0
Bodalla ..	c	68	-	0
Bourke ..	b	105	57	0
C'md'n H.	u	82	66	0·28
C. St. Geo.	c	76	66	0·08
Carcoar ..	b	77	56	0
Casino ..	b	97	58	0·37
Cassilis ..	g	80	60	0
Clarence	b	89	63	0·12
C'nd'b'lin	b	85	44	0
Cooma ..	c	87	45	0
Coonab'n	b	91	47	0
C'nam ble	b	—	—	0
Cowra ..	b	90	59	0
Deniliq'n	b	78	46	0
Dubbo ..	b	93	50	0
Eden	b	79	55	0
Euston ..	b	80	52	0
Forbes ..	b	[illegible]	52	0
Gl'n Inn's	b	82	51	0
Goulburn	g	87	54	0
Grafton ..	b	99	61	0·12
Gulgong	b	83	65	0
Gunned'h	-	-	-	-
Hay	b	76	51	0
Hill End	b	—	—	0
Inverell ..	b	81	57	0
Kiandra	-	—	—	-
Lismore	b	96	64	0·13
Maitland	b	75	69	0
Marsdens	b	86	60	0
Menindie	b	75	59	0
Molong ..	c	90	51	0
Moree ..	b	99	65	0
Moruya ..	b	69	60	0·13
Moss Vale	d	77	60	0
Mt. Hope	b	65	60	0
M. Vict'ria	c	79	54	0
Mudgee ..	b	90	51	0
M'rr'm'bh	b	90	53	0
M'rr'r'ndi	b	79	57	0
Mus'br'k	b	83	63	0
Narrabri	b	89	56	0
Newcastle	b	77	70	0·01
Nowra ..	c	78	61	0
Orange ..	b	78	45	0
Picton ..	d	81	58	0·04
P. M'q'rie	b	81	60	0·09
P. St'ph'n	b	77	63	0
Q'nbeyan	b	82	58	0
Quirindi	b	95	52	0·13
Singleton	b	72	66	0
SYDNEY ..	d	76	65	0.01
Tamw'rth	b	86	57	0
Taralga ..	b	90	53	0
Taree	b	85	62	0·09
T'nt'rfield	b	85	54	0
Wagga ..	b	73	50	0
Walcha ..	b	78	44	0
Walgett ..	b	95	62	0
W'ntw'rth	b	76	55	0
Wilcannia	b	---		0
W'll'ng'ng	d	80	63	0·65
Young ..	b	103	45	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51' 41" S. LONGITUDE 10h. 4m. 50·81s. E.

Average for 28 years from Jan. 1st to Febr'y 28th 9·112
Total Rainfall from January 1st to March 31st ·962
Barometers corrected to 32 Fah. and Mean Sea Level



H. C. RUSSELL,
Government Astronomer.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed Wt. gives the state of the weather at 9 a.m., b blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Mx., gives the maximum temperature for previous 24 hours. Mn. the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station a small arrow is placed with a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; We, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning in Western Australia, and passing along eastwards; northerly winds preceding them and southerly following.

Western Australia.—Generally fine, with variable winds, cloudy and strong S.E. wind at Carnarvon; cloudy with east wind and heavy sea at Perth, sultry; rainfall 0·05 at Lakes Entrance. Extremes of barometers and temperature: 30·02 at Geraldton; 29·69 and 62· at Albany, and 87· at Cossack.

South Australia.—Generally fine and warm; with light northerly winds and calm on south coast; E. and S.E. winds and calm inland and in Northern Territory. Rainfall at Port Darwin 0·50. Extremes of barometers and temperature: 30·22 at Alice Springs, 29·87 and 85· at Port Darwin, and 53· at M'Donnell Bay.

Victoria.—Generally cloudy and gloomy, with fresh S. and S.W. winds, rising barometers, and moderate sea. Rainfall: Portland, 0·03; Melbourne, 0·06; Cape Otway, 0·05; Wilson's Promontory, 0·39; and Lakes Entrance, 0·03. Extreme of barometers and temperature: 30·18 at Melbourne, 29·96 at Echuca, 57· at Lake Entrance, and 66· at Horsham.

Tasmania.—Generally fine, cloudy, with fresh southerly winds, rising barometers, and moderate sea. Rainfall: Southport 0·08, and Hobart 0·03; Aurora visible last night at Hobart and Low Heads. Extremes of barometers and temperature: 30·06 at Low Heads, 39·00 at Hobart, 59· at Falmouth, and 54· at Southport, 54·.

New Zealand.—Generally fine, with light northerly winds and calm, rising barometers, and smooth sea. Extremes of barometers and temperature: Russell 30·10 and 60·, Bluff 29·50 and 50·.

New South Wales. Generally fine, with fresh southerly winds, rising barometers, and smooth sea; light rain fallen along the coast and near the mountains, especially in the Clarence district, and at 9 a.m. it was still raining at the following places:—Wollongong, Gabo Island, Sydney, Picton, and Moruya. Lismore reports heavy wind storm, with sharp, short shower, yesterday evening; at Grafton, there was a thunderstorm and at Eden the aurora was visible from 7.30 to 9 p.m.; aurora was also seen at the same time at Low Heads, in Northern, and at Hobart, in Southern Tasmania. Extra stations: Gabo Island, passing showers and gloomy, rainfall 0·14; Bundarra, max. 86·, min. 53·, rain 0·10, and fine: Morangarell, max. 87·, min. 1·, wind and fine. For further particulars see map.

Queensland.—Generally fine, with S. and S.E. winds, and moderate sea; no rain fallen. Extremes of barometers and temperature: 30·01 at Brisbane, 29·72 at Townsville, 91· at Cooktown, and 73· at Rockhampton.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.W., 13, fine, temperature 64·; Cape Otway, S.E., 8, hazy and fine, moderate sea, temperature 65·; Lakes Entrance, W.S.W., 13, fine but cloudy, smooth sea, temperature 65·; Portland, S., 18, fine and smooth sea, temperature 63·; Wilson's Promontory, S.W., 13, fine, and moderate sea, temperature 63·.

New South Wales.—Cape St. George, S., 28, fine, temperature 67·; Clarence River, S.E., fine, and smooth sea, temperature 80·; Deniliquin, S., 14, fine, temperature 75·; Dubbo, E.S.E., 14, fine, temperature 78·; Eden, S.W., 14, fine, smooth sea, temperature 65·; Goulburn, E., 14, fine, temperature 74·; Menindie, S.W., fine and warm, temperature 74·; Moruya, S.S.E., 42, cloudy, smooth sea, temperature 65·; Newcastle, N.E., 14, dull, smooth sea, temperature 73·; Port Macquarie, S.E., 14, fine, smooth sea, temperature 83·; Sydney, S.E., 12, fine, misty rain, smooth sea, temperature 75·; Wentworth, S., 14, fine and clear, temperature 69·.

STATE OF RIVERS.

Murrumbidgee: At Wagga, summer level; at Hay, below summer level; at Balranald, low. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 17 inches above summer level; at Pooncarie, low; at Menindie, low; Wilcannia, 2 feet 2 inches above summer level.

ASTRONOMICAL MEMORANDA FOR APRIL 1.

Sun rises at 6.13, sets at 5.54; Moon, 3.5 a.m., 3.57 p.m.; Mercury, 7.22 a.m., 6.18 p.m.; Venus, 2.57 a.m., 3.49 p.m.; Mars, 4.34 p.m., 3.32 a.m.; Jupiter, 5.24 p.m., 5.20 a.m.; Saturn, 12.36 p.m., 10.28 p.m. New moon 5th, full moon 19th.

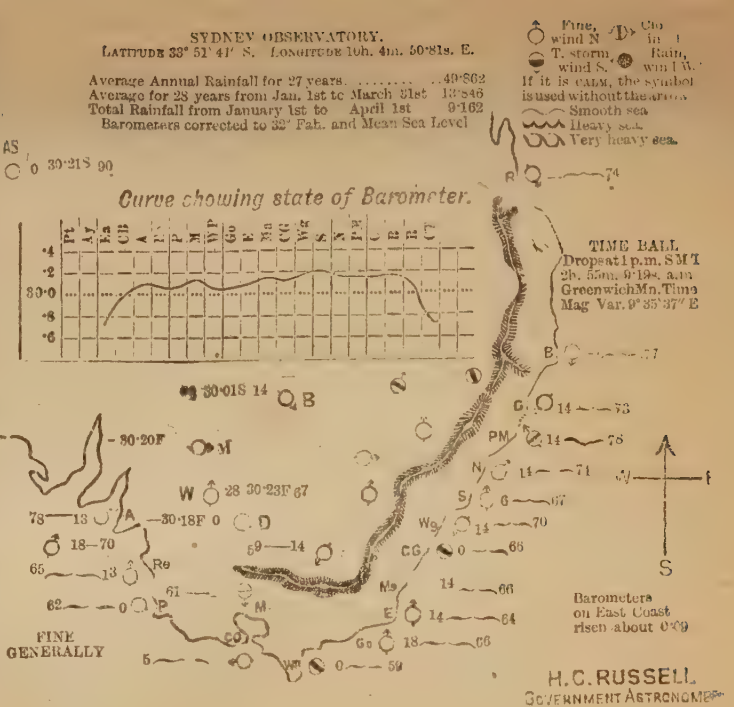
High water at Fort Denison, April 1: 5.57 a.m., 6.24 p.m.

Stations	wt	Mx	Mn	ra'in
Albury	b	84	49	0
Armidale	b	81	66	0
Balranald	b	93	55	0
Bathurst	b	83	50	0
Bend'm'r	b	82	64	0
Bodalla ..	–	—	—	–
Bourke ..	b	100	57	0
C'md'n H.	c	80	70	0
C. St. Geo.	c	70	60	0
Carcoar ..	b	75	60	0
Casino ..	–	—	—	–
Cassilis ..	g	80	61	0
Clarence	b	88	67	0
C'nd'b'lin	b	81	46	0
Cooma ..	b	83	45	0
Coonab'n	b	92	55	0
C'nam ble	b	—	—	0
Cowra ..	b	89	60	0
Deniliq'n	b	93	43	0
Dubbo ..	b	92	60	0
Eden	b	67	63	0
Euston ..	b	91	47	0
Forbes ..	b	88	54	0
Gl'n Inn's	g	81	51	0
Goulburn	b	82	55	0
Grafton ..	b	91	68	0·11
Gulgong	b	83	66	0
Gunned'h	–	—	—	–
Hay	b	82	52	0
Hill End	b	—	—	0
Inverell ..	b	85	58	0
Kiandra	b	69	40	0
Lismore	b	88	66	0
Maitland	b	84	68	0·02
Marsdens	b	84	65	0
Menindie	b	77	61	0
Molong ..	c	90	56	0
Moree ..	b	99	68	0
Moruya ..	b	74	59	0
Moss Vale	c	67	58	0·10
Mt. Hope	b	66	58	0
M. Vict'ria	g	71	54	0·12
Mudgee ..	g	98	60	0
M'rr'm'bh	b	87	58	0
M'rr'r'ndi	b	79	61	0
Mus'lbr'k	g	84	65	0
Narrabri	b	94	59	0
Newcastle	b	79	66	0·50
Nowra ..	–	—	—	–
Orange ..	b	73	52	0
Picton ..	u	69	62	0·15
P. M'q'rie	c	80	67	3·24
P. St'ph'n	b	81	66	0·23
Q'nbeyan	b	75	60	0
Quirindi	b	95	65	0
Singleton	g	82	65	0
Sydney ..	b	70	63	0
Tamw'rth	–	—	—	–
Taralga ..	b	86	58	0
Taree	b	85	68	0·27
T'nt'rfield	–	—	—	–
Wagga ..	b	70	48	0
Walcha ..	b	86	51	0
Walgett ..	b	83	58	0
W'nw'rth	b	84	54	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	70	60	2·25
Young ..	b	84	58	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years. ....49·862
Average for 28 years from Jan. 1st to March 31st 13·846
Total Rainfall from January 1st to April 1st 9·162
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thundery; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Ay, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W'P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C.G. Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P.M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia. — Generally fine and warm, with light northerly winds, fallen barometers, and smooth sea on the south coast; calm and fine inland and in Northern Territory, no rain fallen. Extremes of barometers and temperature—30·06 at Adelaide, 29·89 and 86° at Port Darwin, and 65° at Robe.

Victoria.—Generally fine, with northerly winds, and calm, barometers not rising, and smooth sea; hazy, and heavy dew on the coast. Extremes of barometers and temperature—30·17 at Omeo, and 51°, 30·02 at Wilson's Promontory, and 66° at Horsham. No rain fallen.

Tasmania.—Generally cloudy and gloomy, with fresh northwest winds, rising barometers, and moderate sea; no rain fallen. Extremes of barometers and temperature—30·04 at Low Heads, 29·79 and 64° at Southport, and 60° at Falmouth.

New Zealand.—Generally fine, with light southerly winds and rising barometers; strong S.W. wind and rough sea off Gisborne. Rainfall at Wellington, 0·27. Extremes of barometers—30·00 at Russell, and 29·70 at Wellington and Bluff.

New South Wales.—Generally fine, with northerly winds and calm, rising barometers, and smooth sea; yesterday's rain seems to have been confined entirely to country on the sea-side of the mountains, being heaviest at Port Macquarie and Wollongong. Extremes of barometers and temperature—30·23 at Wentworth, 30·01 at Bourke, 78° at Port Macquarie, and 58° at Cooma. The Murrumbidgee and Murray Rivers are now both below summer level. Extra stations: Bundarra, max. 88°, min. 55°, calm, fine, and warm; Morangarell, max. 83°, min. 52. For further particulars see map.

Queensland.—Generally fine, with light S. and S.E. winds, moderate sea in south and very smooth in north; no rain fallen.

Extremes of barometers and temperature—30·17 at Brisbane 29·71 and 91° at Cooktown, and 74° at Rockhampton.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 13, fine, temperature 77°; Cape Otway, W., gloomy, moderate sea, temperature 74°; Portland, S.E., 13, fine, smooth sea, temperature 73°; Wilson's Promontory, W.N.W., 23, fine, and squally, smooth sea, temperature 70°.

New South Wales.—Cape St. George, N.E., 14, fine, smooth sea, temperature 75°; Deniliquin, E., fine, temperature 73°; Dubbo, calm, fine, temperature 81°; Eden, N.E., 14, fine, smooth sea, temperature 70°; Goulburn, W., 14, fine, temperature 73°; Menindie, calm, fine and warm, temperature 75°; Newcastle, N.E., 14, fine, smooth sea, temperature 73°; Port Macquarie, N.E., 28, fine and smooth sea, temperature 81°; Sydney, E., 8, fine and clear, smooth sea, temperature 74°; Wentworth, E., 14, fine and warm, temperature 74°; Walgett, calm, fine and hot temperature 88°.

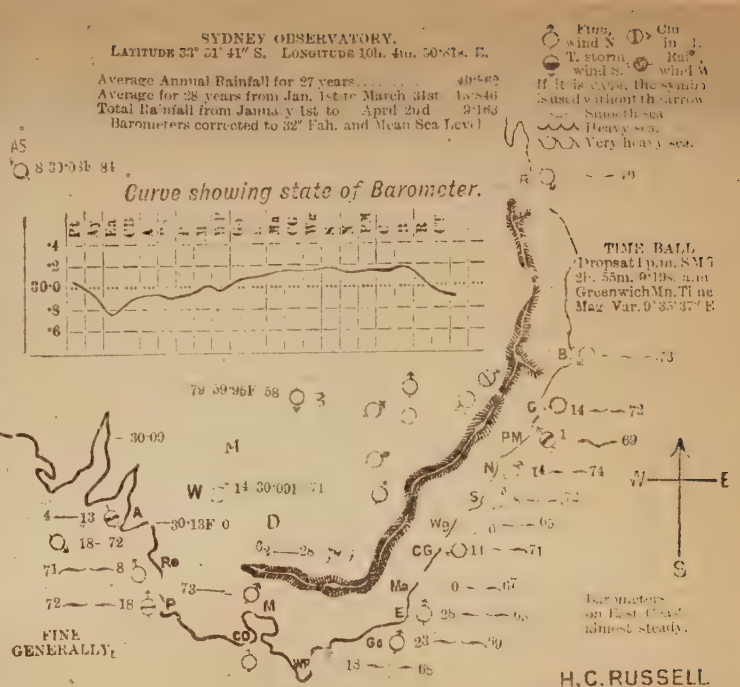
STATE OF RIVERS.

Murrumbidgee: At Wagga, summer level; at Hay, below summer level: at Balranald, low. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 1 inches above summer level; at Pooncarie, low: at Menindie 2 feet 7 inches above summer level; Wilcannia, 2 feet above summer level and falling; Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 1.

Sun rises at 6.14, sets at 5.53: Moon, 3.59 a.m., 4.31 p.m.; Mercury, 7.26 a.m., 6.13 p.m.; Venus, 2.56 a.m., 3.47 p.m.; Mars, 4.20 p.m., 3.27 a.m.; Jupiter, 5.20 p.m., 5.15 a.m.; Saturn, 12.33 p.m., 10.24 p.m. New moon 5th, full moon 19th. High water at Fort Denison, April 1: 6.46 a.m., 7.8 p.m.

Stations	wt	Mx	Mn	R'in
Albury	c	87	55	0
Armidale	b	81	57	0
Balranald	b	104	43	0
Bathurst	b	85	53	0
Bend'm'r	b	85	53	0
Bodalla ..	b	83	-	0
Bourke ..	b	101	61	0
C'md'n H.	b	80	66	0
C. St. Geo.	b	78	59	0
Carcoar ..	b	75	61	0
Casino ..	b	88	58	0
Cassilis ..	o	80	66	0
Clarence	b	89	66	0
C'nd'b'lin	b	84	48	0
Cooma ..	b	83	43	0
Coonab'n	b	94	54	0
C'nam ble	b	—	—	0
Cowra ..	b	90	69	0
Deniliq'n	b	96	49	0
Dubbo ..	b	95	66	0
Eden	b	73	38	0
Euston ..	b	98	48	0
Forbes ..	b	92	60	0
Gl'n Inn's	b	82	58	0
Goulburn	f	93	53	0
Grafton ..	o	94	65	0
Gulgong	g	83	67	0
Gunned'n	-	—	—	-
Hay	b	90	61	0
Hill End	b	—	—	0
Inverell ..	b	85	59	0
Kiandra	b	74	34	0
Lismore	-	—	—	-
Maitland	b	85	63	0
Marsdens	b	87	64	0
Menindie	b	85	61	0
Molong ..	b	93	54	0
Moree ..	b	98	68	0
Moruya ..	b	77	56	0
Moss Vale	b	75	57	0
Mt. Hope	b	73	63	0
M. Vict'ria	c	74	52	0
Mudgee ..	b	96	59	0
M'rr'm'bh	-	—	—	-
M'rr'r'ndi	b	81	63	0
Mus'br'k	g	86	65	0
Narrabri	b	91	61	0
Newcastle	b	79	68	0
Nowra ..	-	—	—	-
Orange ..	b	75	52	0
Picton ..	f	78	60	0
P. M'q'rie	c	80	62	0
P. St'ph'n	b	79	63	0
Q'nbeyan	b	79	55	0
Quirindi	b	96	68	0
Singleton	g	72	66	0
Sydney ..	b	75	67	0
Tamw'rth	-	—	—	-
Taralga ..	b	92	53	0
Taree	b	85	64	0
T'nt'rfield	c	80	58	0
Wagga ..	g	72	50	0
Walcha ..	b	79	55	0
Walgett ..	b	93	67	0
W'ntw'rth	b	92	57	0
Wilcannia	-	—	—	0
W'll'ng'ng	b	79	61	0
Young ..	b	102	57	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., by standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'in, the rainfall for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with its proper fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—P, Perth; Ad, Adelaide; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ba, Robe; F, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; L, Eden; Mo, Moruya; CG, Cape Otway; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and gloomy, with moderate sea on west coast, and high sea off Albany, where it is raining, with strong S.S.W. wind; barometers have risen, and extremes now read 30·12 at Geraldtown and 29·78 at Esperance Bay. Rainfall: Geraldtown, 0·97; Albany, 0·55; and Eucla, 0·12.

South Australia.—Generally cloudy, sultry, and hazy, with northerly winds, and moderate sea on coast; fine, with southerly winds and calm inland; no rain fallen. Extremes of barometers and temperature: 30·06 and 84° at Alice Springs; 29·72 and 69° at Eucla.

Victoria.—Generally fine but cloudy, with fresh northerly winds and fallen barometers; hazy, misty, and sultry along the coast, with rough sea off Cape Schanck; no rain fallen. Extremes of barometers and temperature: 30·15 and 62° at Omeo; 29·91 at Portland; and 73° at Melbourne.

Tasmania.—Generally fine, with light variable winds and calms, risen barometers and smooth sea; threatening in southern ports, with rainfall of 0·01 at Hobart. Extremes of barometers and temperature: 30·01 at Falmouth; 29·92 at Southport; 52° at Hobart; and 62° at Low Heads.

New Zealand.—Generally fine with variable winds and calm. Extremes of barometers and temperature: 30·20 and 62° at Russell; 30·00 and 52° at Bluff.

New South Wales.—Generally fine, with light variable winds and fallen barometers inland. Northerly winds, steady barometers, and smooth sea on the coast. No rain fallen. Extremes of barometers and temperature: 30·16 at Wollongong, 29·95 and 79° at Bourke, and 54° at Cooma. Extra stations: Bundarra, maximum 88°, minimum 56°, calm, fine and warm; Morangarell, maximum 72°, minimum 62°, calm, fine and clear. (For further particulars see map.)

Queensland.—Generally fine, with southerly winds, risen barometers, and moderate sea. No rain fallen. Extremes of barometers and temperature: 30·19 and 73° at Brisbane, 29·67 at Townsville, and 91° at Cooktown.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, N., 28, rough sea, temperature 77°; Deniliquin, N., 14, fine, temperature 80°; Dubbo, N., fine, temperature 84°; Eden, N.E., 28, fine, light sea, temperature 68°; Balranald, N., 14, fine; Goulburn, E., 14, fine, temperature 72°; Menindie, N., 28, fine and hot, temperature 81°; Moruya, N.E., 42, fine, smooth sea, temperature 76°; Newcastle, N.E., 28, fine, smooth sea, temperature 76°; Port Macquarie, N.E., 42, unsettled, smooth sea, temperature 73°; Sydney, N.E., 16, fine and cool, smooth sea, temperature 74°; Wentworth, N., 14, fine and warm, 80°.

STATE OF RIVERS.

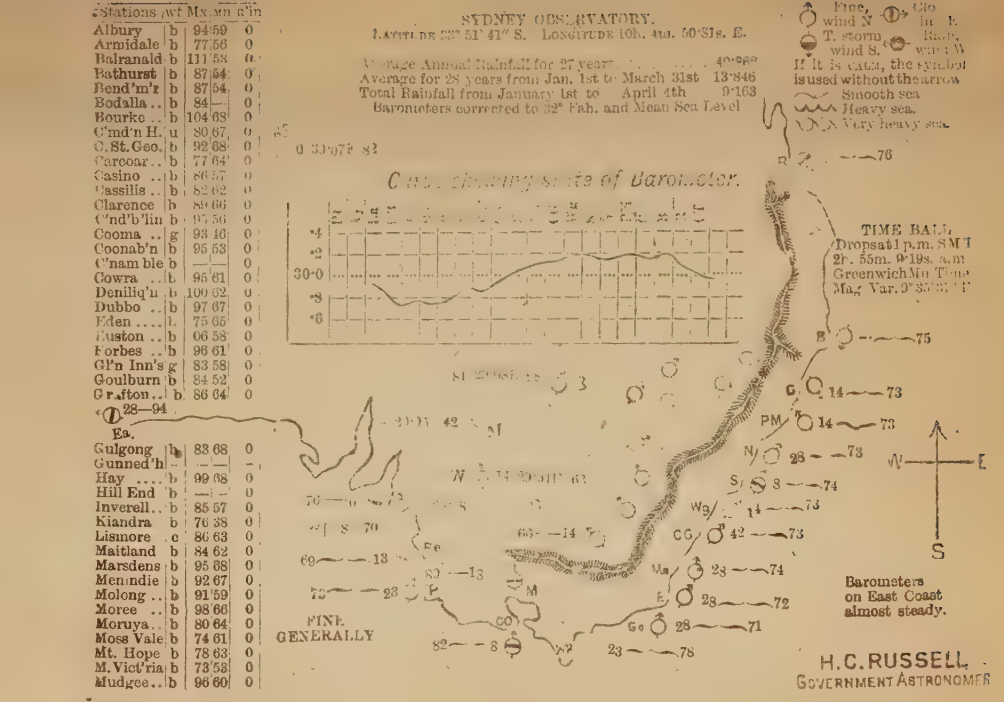
Murrumbidgee: At Wagga, summer level; Hay, below summer level; Balranald, 3 feet below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 10 inches above summer level; at Pooncarie, low; at Menindie, 2 feet 5 inches above summer level; at Wilcannia, 1 foot 10 inches above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 3.

Sun rises at 6.15 a.m., sets at 5.51 p.m.; Moon, 4.51 a.m., 5.5 p.m.; Mercury, 7.16 a.m., 6.8 p.m.; Venus, 2.35 a.m., 3.46 p.m.; Mars, 4.24 p.m., 3.22 a.m.; Jupiter, 5.16 p.m., 5.11 a.m.; Saturn, 12.28 p.m., 10.20 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison: 7.28 a.m., 7.48 p.m.

Stations	wt	Mx	mn	r'in
Albury	b	94	59	0
Armidale	b	77	56	0
Balranald	b	111	58	0
Bathurst	b	87	54	0
Bend'm'r	b	87	54	0
Bodalla ..	b	84	—	0
Bourke ..	b	104	68	0
C'md'n H.	u	80	67	0
C. St. Geo.	b	92	68	0
Carcoar ..	b	77	64	0
Casino ..	b	86	57	0
Cassilis ..	b	82	62	0
Clarence	b	89	66	0
C'nd'b'lin	b	97	56	0
Cooma ..	g	93	46	0
Coonab'n	b	95	53	0
C'nam ble	b	—	—	0
Cowra ..	b	96	61	0
Deniliq'n	b	100	62	0
Dubbo ..	b	97	67	0
Eden	b	75	65	0
Euston ..	b	96	58	0
Forbes ..	b	96	61	0
Gl'n Inn's	g	83	58	0
Goulburn	b	84	52	0
Grafton ..	b	86	64	0
Gulgong	b	83	68	0
Gunned'h	—	—	—	—
Hay	b	99	68	0
Hill End	b	—	—	0
Inverell ..	b	85	57	0
Kiandra	b	76	38	0
Lismore ..	c	86	63	0
Maitland	b	84	62	0
Marsdens	b	95	68	0
Menindie	b	92	67	0
Molong ..	b	91	59	0
Moree ..	b	98	66	0
Moruya ..	b	80	64	0
Moss Vale	b	74	61	0
Mt. Hope	b	78	63	0
M. Vict'ria	b	73	53	0
Mudgee ..	b	96	60	0
M'rr'm'bh	b	91	59	—
M'rr'ndi	b	81	59	0
Mus'br'k	b	84	63	0
Narrabri	b	94	62	0
Newcastle	b	79	68	0
Nowra ..	—	—	—	—
Orange ..	b	76	55	0
Picton ..	g	81	61	0
P. M'q'rie	b	80	67	0·26
P. St'ph'n	b	80	56	0
Q'nbeyan	b	79	70	0
Quirindi	b	99	62	0
Singleton	b	83	64	0
SYDNEY ..	c	77	69	0
Tamw'rth	—	—	—	—
Taralga ..	b	91	62	0
Taree	b	83	66	0
T'nt'rfield	b	83	55	0
Wagga ..	b	81	60	0
Walcha ..	b	80	52	0
Walgett ..	b	93	69	0
W'ntw'rth	o	97	63	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	81	65	0
Young ..	b	100	58	0



H.C. RUSSELL.
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W. T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. Min. the corresponding minimum temperature; r'in, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CE, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Generally cloudy and gloomy, with N. and E. winds on coast; fine, with variable winds and calm inland; barometers low, and sea smooth. Rainfall: Eucla, 0·43; Streaky Bay, 0·25; Lincoln, 0·12, and still raining. Extremes of barometers and temperature: 30·07 at Alice Springs, 29·74 at Robe and M'Donnell Bay, 86° at Port Darwin, and 64 at Eucla.

Victoria.—Generally fine, hazy, and hot, with squally north wind, fallen barometers, and smooth sea; rough sea, squally, hot wind at Cape Schanck; fine, hot wind, and squally at Wilson's Promontory. Extremes of barometers and temperature: 29·96 at Lake Entrance, 70° and 29·81 at Wilson's Promontory, and 82° at Cape Otway.

Tasmania.—Generally cloudy, sultry, and unsettled, with calms, sea smooth, and no rain fallen. Extremes of barometers and temperature: 29·56 and 60° at Low Heads, 29·77 and 68° at Southport.

New Zealand.—Generally fine, with light N. winds and calm, smooth sea, and no rain. Extremes of barometers and temperature: 30·30 and 63° at Russell, 30·1 and 52° at Bluff.

New South Wales.—Generally fine, with light N.E. winds, steady barometers on coast but fallen inland, and sea smooth. The only station showing rain is Port Macquarie, 0·26. Extremes of barometers and temperature: 30·20 at Port Macquarie, 29·94 at Wentworth, 81° at Bourke and Hay, and 63° at Bathurst; showing a general rise in temperature, which, with an overcast sky in Sydney, caused a sultry and close night. A barometric depression is south of Adelaide and is travelling towards N. S. W. from W.; it is accompanied by rain. Extra stations: Morangarell, max. 94°, min. 56°, N.E. wind and fine. (For further particulars see map.)

Queensland.—Raining at Cooktown, gloomy at Rockhampton, elsewhere fine, sea moderate, and rainfall at Cooktown and Brisbane 0·04 and 0·01. Extremes of barometers and temperature: 30·21 and 75° at Brisbane, 29·68 at Townsville, and 90° at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, N., 6, hot wind, smooth sea, temperature 89°; Portland, calm, hot, smooth sea, temperature 77°; Wilson's Promontory, N., 24, fierce hot wind, smooth sea, temperature 85°.

New South Wales.—Cape St. George, N., 28, fine, smooth sea, temperature 76°; Clarence River, S.E., fine, smooth sea, temperature 74°; Deniliquin, N., 4, fine, hot; Dubbo, W.N.W., fine, temperature 85°; Goulburn, N., 10, fine, temperature 78°; Menindie, N., 30, dusty and hot, temperature 88°; Moruya, N.E., 40, fine, moderate sea, temperature 75°; Newcastle, N.E., 30, fine, smooth sea, temperature 75°; Port Macquarie, N.N.E., 42, fine, smooth sea, temperature 79°; Sydney, N.E., 20, fine, warm, smooth sea, temperature 73°; Wentworth, N., cloudy, hot, temperature 83°; Walgett, S., fine, warm, temperature 89°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, summer level; Hay, below summer level; Balranald, 3 feet above summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 10 inches above summer level; at Pooncarie, low; at Menindie, 2 feet 4 inches above summer level; at Wilcannia, 1 foot above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 5.

Sun rises at 6.16 a.m., sets at 5.49 p.m.; Moon, 6.44 a.m., 6.14 p.m.; Mercury, 6.58 a.m., 5.59 p.m.; Venus, 2.53 a.m., 3.43 p.m.; Mars, 4.15 p.m., 3.13 a.m.; Jupiter, 5.8 p.m., 5.2 a.m.; Saturn, 12.20 p.m., 10.12 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 5: 8.44 a.m., 9.2 p.m.

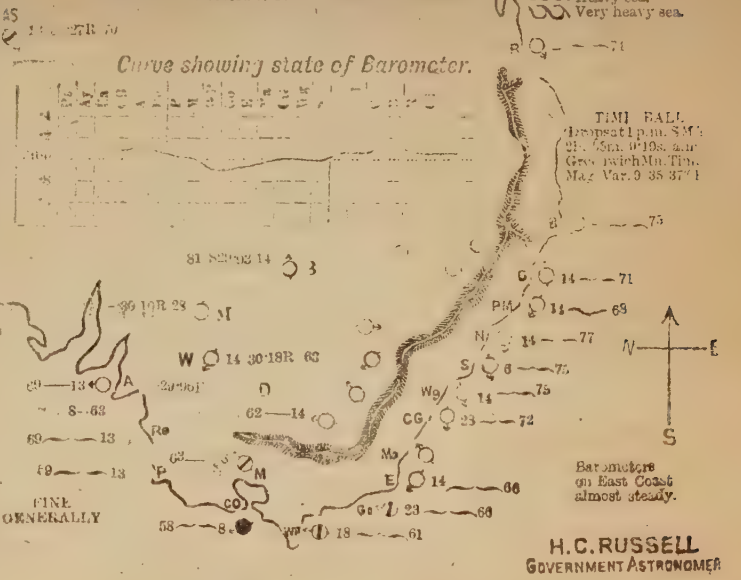
Stations	wt	Mx	m	r	In
Albury	b	95	57	0	
Armidale	b	81	52	0	
Balranald	b	92	47	0	
Bathurst	b	89	55	0	
Bend'm'r	b	89	53	0	
Bodalla ..	b	98	—	0	
Bourke ..	b	95	66	0	
C'md'n H.	b	81	68	0	
C. St. Geo.	b	95	66	0	
Carcoar ..	b	78	61	0	
Casino ..	b	85	58	0	
Cassilis ..	b	84	63	0	
Clarence	b	88	65	0	
C'nd'b'lin	b	92	53	0	
Cooma ..	c	91	48	0	
Coonab'n	b	90	51	0	
C'namble	b	—	—	0	
Cowra ..	b	88	63	0	
Deniliq'n	b	105	53	0	
Dubbo ..	b	92	59	0	
Eden	b	79	62	0	
Euston ..	g	86	51	0	
Forbes ..	b	93	64	0	
Gl'n Inn's	b	87	55	0	
Goulburn	b	90	56	0	
Grafton ..	b	87	67	0	
Ga.					
Gulgong	b	89	69	0	
Gunned'h	b	—	—	—	
Hay	b	93	57	0	
Hill End	b	—	—	0	
Inverell ..	b	81	53	0	
Kiandra	b	76	40	0	
Lismore	b	83	60	0	
Maitland	b	82	61	0	
Marsdens	b	97	70	0	
Menindie	b	82	66	0	
Molong ..	b	89	53	0	
Moree ..	b	94	65	0	
Moruya ..	b	94	62	0	
Moss Vale	b	82	62	0	
Mt. Hope	b	76	65	0	
M. Vict'ria	b	81	59	0	
Mudgee ..	b	97	53	0	
M'rr'm'bh	b	93	62	0	
M'rr'ndi	b	84	65	0	
Mus'br'k	b	84	60	0	
Narrabri	b	91	52	0	
Newcastle	b	75	65	0	
Nowra ..	b	91	64	0	
Orange ..	b	75	49	0	
Picton ..	b	88	58	0	
P. M'q'rie	b	78	60	0	
P. St'ph'n	b	78	56	0	
Q'nbeyan	b	84	59	0	
Quirindi	b	98	69	0	
Singleton	b	88	58	0	
SYDNEY ..	h	80	65	0	
Tamw'rth	—	—	—	—	
Taralga ..	b	93	55	0	
Taree	b	89	61	0	
T'nt'rfield	b	82	49	0	
Wagga ..	b	77	55	0	
Walcha ..	b	79	50	0	
Walgett ..	b	93	68	0	
W'ntw'rth	b	84	54	0	
Wilcannia	h	—	—	0	
W'll'ng'ng	b	80	63	0	
Young ..	b	95	57	0	

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·362
Average for 28 years from Jan. 1st to March 31st 13·946
Total fall from January 1st to April 5th 9·163
Barometers corrected to 32° Fah. and Mean Sea Level

Fine, wind N. T. storm, wind S. Cloudy in E. Rain, wind W. If it is CALM, the symbol is used without the arrow. Smooth sea. Heavy sea. Very heavy sea.



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Generally fine, with light westerly winds, risen barometer, and smooth sea. Rainfall: Cratters, 0·75; M'Donnell Bay, 0·12; Port Augusta, 0·05; Robe, 0·03. Extremes of barometer and temperature: 30·27 at Alice Springs, 29·85 and 89° at Port Darwin, and 59° at M'Donnell Bay.

Victoria.—Generally cloudy, gloomy, and raining, with light south-westerly winds, risen barometers, and smooth sea. Raining at Cape Schanck, Cape Otway, Portland, and Horsham. Rainfall: Cape Schanck, 0·07; Cape Otway, 0·17; Portland, 0·56. Extremes of barometer and temperature: 30·17 at Omeo, 29.91 at Wilson's Promontory, 58° at Cape Otway, and 68° at Horsham. Ballarat rainfall, 0·04.

Tasmania.—Generally fine, with southerly winds, risen barometer and smooth sea. Rainfall: Southport, 0·60; Hobart, 0·13; Low Heads, 0·11. Extremes of barometers and temperature: 29·95 and 54° at Southport, 29·90 and 59° at Circular Head.

New Zealand.—Generally cloudy, with light north-west winds and calm, risen barometer, and smooth sea. Extremes of barometers: 30·30 at Russell, and 29·90 at Wellington.

New South Wales.—Generally fine; hazy and warm, with steady barometers; light southerly winds and smooth sea on coast; risen barometers and variable winds inland. No rain fallen. Extremes of barometers and temperature at 9 a.m.: 30.18 at Wentworth, 29·78 at Goulburn, 81· at Bourke, and 62· at Albury. Extra stations: Bundarra, max. 86·, min. 50·, calm and fine; Morangarell, max. 90·, min. 63·, W. wind and fine weather. (For further particulars see map.)

Queensland.—Generally fine, with light southerly winds, moderate sea, and risen barometers. Rainfall: At Cape Moreton, 0·08; at Townsville, 0·11, and still raining. Extremes of barometers and temperature: 30·15 at Brisbane, 29·99 at Cooktown, and 90°, at Rockhampton 74°.

3 P.M. OBSERVATIONS.

¶ Victoria.—Cape Schanck, S.W., 8, misty and cloudy, smooth sea, temperature 67°; Melbourne, S.S.W., 13, cloudy, temperature 66°; Cape Otway, W., 8, passing showers, smooth sea, temperature 64°; Lake Entrance, S.E., 18, fine but cloudy, smooth sea, temperature 70°; Portland, W., 23, fine, smooth sea, temperature 67°; Wilson's Promontory, W., 23, misty rain and squally, temperature 61°.

New South Wales.—Cape St. George, S., 28, fine, smooth sea, temperature 74°; Clarence River, N.E., 28, fine, smooth sea, temperature 78°; Deniliquin, calm, fine, temperature 68°; Dubbo, W.N.W., 14, fine, temperature 83°; Eden, E., 14, fine, light sea, temperature 70°; Goulburn, N., 14, fine, temperature 79°; Moruya, E.S.E., 28, fine but cloudy, smooth sea, temperature 74°; Port Macquarie, N.E., 14, fine, moderate sea, temperature 81°; Sydney, S.S.E., 12, fine and clear, smooth sea, temperature 76°; Wentworth, N.W., 28, fine and cool, temperature 68°. Warm southerly wind all day at Sydney owing to the hot winds which have been blowing over Victoria on Saturday and yesterday being driven before the southerly.

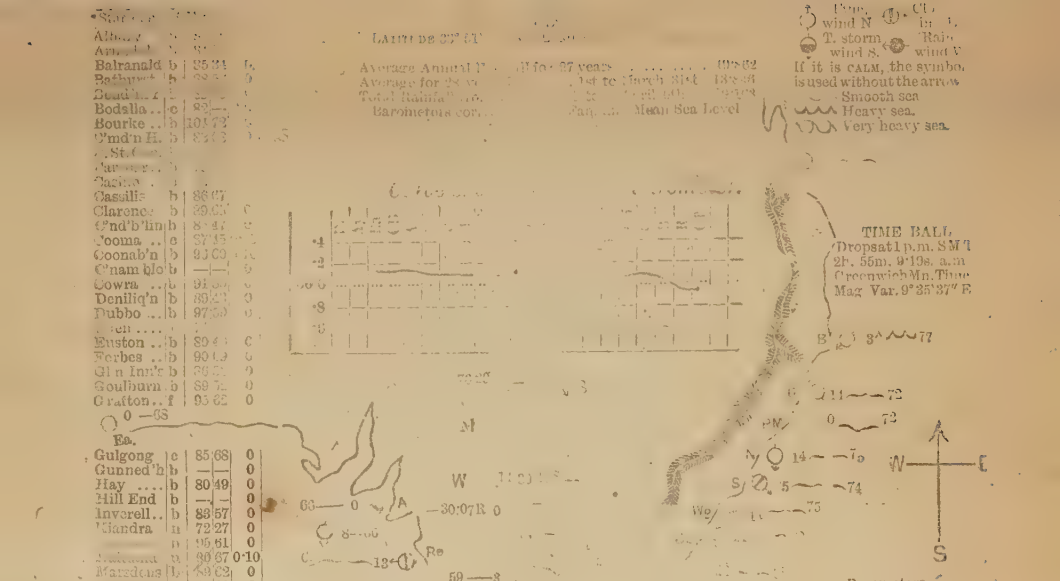
STATE OF RIVERS.

Murrumbidgee: At Wagga, summer level; Hay, summer level; Balranald, 3 feet above summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 1 foot above summer level; at Pooncarie, 3 inches above summer level; at Menindie, 2 feet 3 inches above summer level; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 6.

Sun rises at 6.17 a.m., sets at 5.47 p.m.; Moon, 7.42 a.m., 6.50 p.m.; Mercury, 6.52 a.m., 5.54 p.m.; Venus, 2.52 a.m., 3.41 p.m.; Mars, 4.10 p.m., 3.8 a.m.; Jupiter, 5.4 p.m., 4.57 a.m.; Saturn, 12.16 p.m., 10.8 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 6: 9.20 a.m., 9.37 p.m.



Gulgong	c	85 68	0
Gunned'h	b	— —	0
Hay	b	80 49	0
Hill End	b	— —	0
Inverell	b	83 57	0
Kiandra	n	72 27	0
[illegible]	n	95 61	0
[illegible]	n	86 67	0·10
Mareeba	b	88 63	0
[illegible]	b	80 53	0
[illegible]	b	91 60	0
[illegible]	b	90 56	0
[illegible]	b	78 62	0
[illegible]	u	82 59	0
[illegible]	b	83 68	0
[illegible]	g	81 58	0
[illegible]	g	95 57	0·20
[illegible]	b	91 54	0
Mar'r'ndi	b	85 66	0
Mus'br'k	b	98 64	0·06
Narrabri	b	81 62	0
Newcastle	b	92 69	0
Nowra	b	83 63	0
Orange	b	79 52	0
Picton	u	83 63	0
P. M'q'rie	b	79 63	0
P. St'ph'n	b	81 66	0
Q'beyan	t	— —	0
Quirindi	b	100 70	0
Singleton	b	93 64	0·18
SYDNEY	c	86 69	0
Tamw'rth	b	— —	0
Taralga	u	88 55	0
Taree	g	93 66	0·08
T'nt'rfield	b	87 50	0
Wagga	b	69 —	0
Walcha	b	81 56	0
Walgett	b	96 69	0
W'ntw'rth	b	78 50	0
Wilcannia	b	— —	0
W'll'ng'ng	c	79 66	0
Young	b	101 49	0

NOTES EXPLANATORY OF MAP.

[illegible] the list of stations the [illegible] the state of the weather at 9 a.m., b [illegible] ing for blue sky; c, [illegible] ing rain; f, fog; g, gloomy; h, hazy; [illegible] listy; n, frosty; o, [illegible]; r, rain; s, snow; t, thunder; u, [illegible] atening. The next co[illegible] thermometer; Min, minimum temperature for previous 24 hours. Min the correspon[illegible] rm, rain for the previous 24 hours. The symbols used [illegible] on the margin. At each coast station the wind symbol is placed [illegible] to the direction from which the wind is blowing. A clear circle [illegible] ing weather; a circle with bar, cloudy weather; and a black spot [illegible] ed figures denoting the number of miles the w[illegible] hour; lastly, a symbol showing the state of the sea; and, lastly, figu[illegible] ode temperature at 9 a.m. The barometer curve shows the state of barometric [illegible] the coast from Perth to Cooktown:—Pt, Perth; Av, Albany; Fa, Eucla; Ck, Ceduna; Ad, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wa, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Calm at Geraldton, also fine and warm.

South Australia.—Fine generally, on and near coast the weather is cloudy; light, variable winds and calms inland; threatening. At Alice Springs, 0·41 rain at 9 a.m.; 0·05 at Cape Borda; 0·03 at Adelaide; and 0·13 at Robe. The barometer has risen slightly.

Victoria.—Generally cloudy; rough sea at Falmouth; wind throughout light and variable. Rainfall: At Cape Schanck, ·; Portland, 0·01; and 0·03 at Lake Entrance. The barometers have risen about 0·08 since yesterday.

Tasmania.—Cloudy weather; smooth sea at Southport: wind S.E. and fresh at Low Head. Amount of rainfall at 9 a.m.: At Hobart, 0·10; and at Southport, 0·06.

New Zealand.—Barometer: At Russell, 30·1, calm and fine; Wellington, 30·0, N.W. wind, and fine; Bluff, 29·8, overcast, with wind from the S.W.

New South Wales.—Throughout the colony fine weather generally prevails, with light and variable winds. Heavy frost at Kiandra last night, threatening this morning at Moss Vale and Picton, and dull at a few more stations, all on the east side of the range. Heavy thunderstorm passed over Walgett from S.W. to N.E. at 9 p.m., but no rain fell. Additional stations: Bundarra, calm and very warm; Gulgong, S.E., cloudy; Mount Hope, calm, fine and cool; Morangarell, calm, fine, clear.

Queensland.—Weather fine. The barometers have shown a light fall since yesterday, wind light and variable; sea rather rough at Cape Moreton.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S., 13, overcast, temperature 67°; Cape Otway, W.N.W., 8, cloudy, moderate sea, temperature 65°; Portland, W.S.W., 3, cloudy, smooth sea, temperature 70°; Wilson's Promontory, N.E., 8, cloudy, slight sea, temperature 63°.

New South Wales.—Cape St. George, S.S.E., 1, fine, temperature 75°; Clarence River, N.E., light, fine, smooth sea, temperature, 79°; Deniliquin, N.W., fine, clear temperature 69°; Dubbo, W.N.W., 1, fine, temperature 83°; Eden, E.S.E., 2, cloudy, light sea, temperature 68°; Goulburn, N.E., light, fine, temperature 74°; Newcastle, S.S.E., light, fine, smooth sea, temperature 72°; Port Macquarie, S.E., 1, fine, sultry, smooth sea, temperature 80°; Sydney, E., 2, cloudy, smooth sea, temperature 73°; Wentworth, N.W., 2, cloudy, temperature 70°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, summer level; Hay, summer level; Balranald, 3 feet below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 1 foot above summer level; at Pooncarie, 11 inches above summer level; at Menindie, 2 feet 1 inch above summer level, falling; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 7.

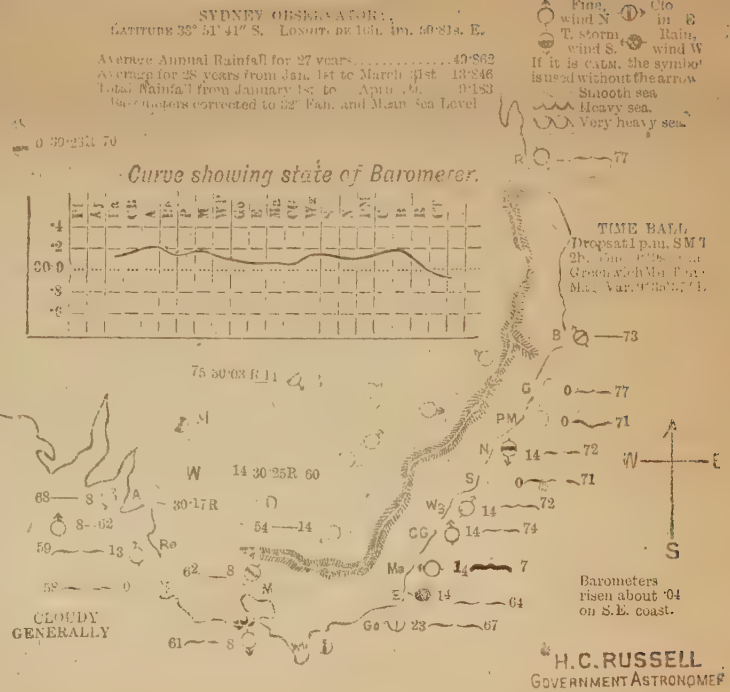
Sun rises at 6.18 a.m., sets at 5.16 p.m.; Moon, 8.41 a.m., 7.29 p.m.; Mercury, 6.46 a.m., 5.50 p.m.; Venus, 2.52 a.m., 3.40 p.m.; Mars, 4.6 p.m., 3.4 a.m.; Jupiter, 4.59 p.m., 4.53 a.m.; Saturn, 12.13 p.m., 10.5 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 7: 9.56 a.m., 10.14 p.m.

Stations	W.T.	Min.	Max.	Rain.
Albury	b	82	47	0
Armidale	b	87	59	0·02
Balranald	h	93	37	0
Bathurst	g	86	46	0
Bend'm'r	b	84	52	0
Bodalla ..	b	85	70	0·04
Bourke ..	c	99	69	0
C'md'n H.	b	83	64	0
C. St. Geo.	b	78	63	0
Carcoar ..	g	75	56	0
Casino ..	b	93	62	0
Cassilis ..	t	83	56	0
Clarence	b	89	70	0
C'nd'b'lin	b	86	44	0
Cooma ..	b	84	47	0
Coonab'n	g	94	56	0
C'nam ble	g	—	—	0
Cowra ..	b	89	56	0
Deniliq'n	b	82	47	0
Dubbo ..	b	93	56	0
Eden	r	74	63	0·12
Euston ..	b	88	62	0
Forbes ..	b	86	51	0
Gl'n Inn's	b	86	58	0·10
Goulburn	b	85	48	0
Grafton ..	b	96	66	0
Gulgong	b	84	65	0
Gunned'h	—	—	—	—
Hay	b	84	51	0
Hill End	b	—	—	0
Inverell..	b	86	61	0
Kiandra	n	67	51	0
Lismore	h	95	69	0
Maitland	c	09	66	0
Marsdens	b	85	60	0
Menindie	b	79	57	0
Molong ..	b	92	56	0
Moree ..	b	102	70	0
Moruya..	b	75	63	2·00
Moss Vale	b	74	60	0·03
Mt. Hope	b	81	66	0·02
M. Vict'ria	c	73	53	0
Mudgee..	b	95	60	0
M'rr'm'bh	b	89	53	0
M'rr'ndi	b	86	62	0·06
Mus'br'k	c	85	63	0
Narrabri	b	94	66	0
Newcastle	b	91	67	0
Nowra ..	g	77	63	0
Orange ..	b	76	52	0
Picton ..	b	78	60	0
P. M'q'rie	f	79	63	0·02
P. St'ph'n	b	79	57	0
Q'nbeyan	h	76	58	0
Quirindi	b	94	68	0
Singleton	g	82	65	0
Sydney ..	b	77	6	0·02
Tamw'rth	c	94	60	0
Taralga ..	b	83	49	0
Taree	b	89	69	0·03
T'nt'rfield	b	86	51	0
Wagga ..	b	66	49	0
Walcha ..	b	85	52	2·19
Walgett..	b	98	66	0
W'ntw'rth	b	85	51	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	81	63	0·06
Young ..	b	99	47	04

SYDNEY OBSERVATORY:
LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years ..... 49·862
Average for 28 years from Jan. 1st to March 31st 13·846
Total Rainfall from January 1st to April 9th. 9·183
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b signifying fair blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, thunderstorms. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sky; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W.P., Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures, at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Albany: Barometer, 30·12; temperature, 60°; moderate S.W. wind, cloudy weather, and smooth sea.

South Australia.—Generally fine, with light N. and N.E. winds, risen barometers and smooth sea on coast; cloudy, with S. and E. winds and calm inland; temperature on coast generally low, but no rain fallen. Extremes of barometers and temperature: 30·26 at Alice Springs, 29·83 and 91° at Port Darwin, and 56° at M'Donnell Bay.

Victoria.—Cloudy and raining in east, with westerly winds; fine with variable winds and calm in west; heavy showers, and rainfall 0·47 at Lakes Entrance. Extreme of barometers and temperature: 30·19 at Melbourne; 30.00 at Euchuca, 65° at Horsham, and 58° at Portland.

Tasmania.—Generally fine, with south winds on north coast, and east winds on east coast and smooth sea. Rainfall; Circular Heads, 0·32; Low Heads, 0·09; Hobart, 0·64; and Southport, 0·26. Extremes of barometers and temperature: 30·14 at Low Heads and 57°, 30·11 at all other stations, and 61° at Hobart.

New Zealand.—Generally fine, with southerly winds and calm, and smooth sea; heavy showers from S.E. at Wellington. Extremes of barometers: 30·20 at Russell and Bluff, and 30·10 at Wellington.

Queensland.—Generally fine, with light E. and S. winds, and moderate sea. Rainfall: Brisbane, 0·50; and Cape Moreton, 0·10. Extremes of barometers and temperature: 30·18 and 73. at Brisbane, 29·76 at Townsville, and 89° at Cooktown.

New South Wales.—Generally fine, with variable winds and calm, risen barometers. Light rain fallen on and near the coast as far as the mounrains, principally S. of Sydney, and heaviest at Moruya, Walcha, and Gabo Island; at 9 a.m. it was still showery at Eden. Walgett report: Stormy in S.W. and W. during night, but no rain fallen; rivers low. Extremes of barometers and temperature at 9 a.m.: 30·25 at Wentworth, 30·03 and 75° at Bourke, and 58° at Cooma, showing a fall in temperature. Rainfall at Gabo, 1·15. Additional stations: Bundarra, max. 90, min., 60, calm and very warm; Morangarell, max. 88, min. 51, W. wind and fine. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, S.E., 8, misty, smooth sea, temperature, 66°; Melbourne, S.S.W., 13, fine, temperature 69°; Cape Otway, S.W., 8, smooth sea, temperature 64°; Portland, S.S.W., 13, fine, but cloudy, smooth sea, temperature 67°; Wilson's Promontory, S.W., 13, fine, but cloudy, smooth sea, temperature 68°.

New South Wales.—Cape St. George, calm, fine, smooth sea, temperature 77°; Deniliquin, calm, fine and clear, temperature 79°; Menindie, calm, fine and clear, temperature 75°; Moruya, S., 14, fine and smooth, temperature 73°; Newcastle, N.E., 14, fine and smooth, temperature 73°; Port Macquarie, N.N.E., 28, fine and smooth, temperature 81°; Sydney, E.N.E., 14, fine and clear, smooth sea, temperature 73°; Wentworth, N.W., 14, fine and warm, temperature 71°; Walgett, calm, fine and hot, temperature 90°.

STATE OF RIVERS.

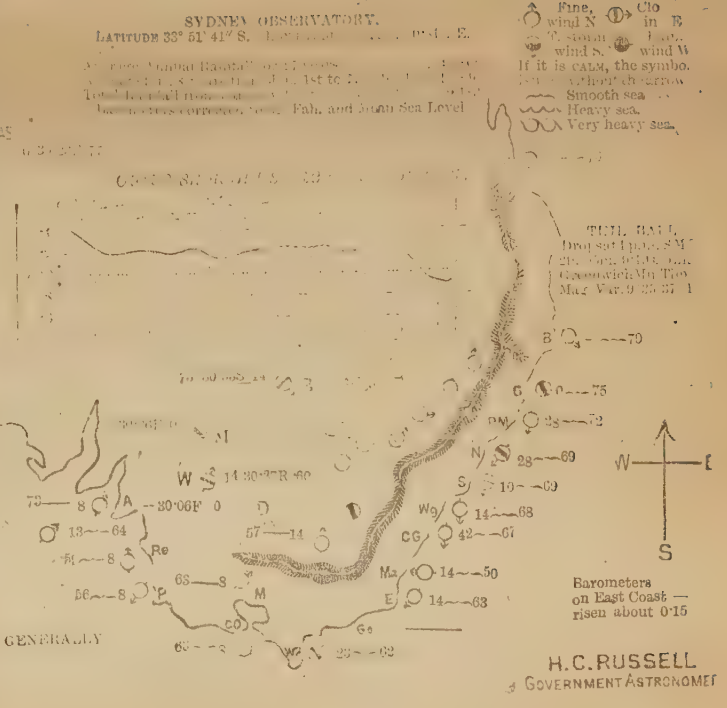
Murrumbidgee: At Wagga, 0 feet 3 inches above summer level; Hay, summer level; Balranald, 3 feet 3 inches above summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 1 foot above summer level; at Pooncarie, low; at Menindie, 2 feet above summer level; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 8.

Sun rises at 6.19 a.m., sets at 5.45 p.m.; Moon, 9.41 a.m., 8.13 p.m.; Mercury, 6.36 a.m., 5.44 p.m.; Venus, 2.52 a.m., 3.39 p.m.; Mars, 4.2 p.m., 3.0 a.m.; Jupiter, 4.55 p.m., 4.49 a.m.; Saturn, 12.9 p.m., 10.1 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 8: 10.34 a.m., 10.53 p.m.

Stations	wt	Mx	mn	r in 10
Albury	b	83	50	0
Armidale	b	86	56	0·10
Balranald	g	93	36	0
Bathurst	b	84	48	0
Bend'm'r	b	83	49	0
Bodalla ..	b	83	--	0
Bourke ..	c	93	67	0
C'md'n H.	r	82	72	0
C. St. Geo.	b	67	60	0
Carcoar ..	b	71	58	0
Casino ..	b	90	61	0
Cassilis ..	o	85	53	0
Clarence	g	89	68	0
C'md'b'lin	b	80	52	0
Cooma ..	b	79	36	0
Coonab'n	g	91	55	0
C'nam ble	b	--	--	0
Cowra ..	b	87	54	0
Deniliq'n	b	88	46	0
Dubbo ..	b	94	56	0
Eden	b	73	60	0·02
Euston ..	g	91	52	0
Forbes ..	b	82	49	0
Gl'n Inn's	b	90	54	0·12
Goulburn	b	81	46	0
Grafton ..	c	97	68	0
Ea.	13—68			
Gulgong	b	83	70	0
Gunned'h	--	--	--	--
Hay	b	84	46	0
Hill End	b	--	--	0
Inverell..	b	86	60	0
Kiandra	c	67	28	0
Lismore	b	96	68	0
Maitland	c	84	67	0
Marsdens	b	84	57	0
Menindie	g	80	63	0
Molong ..	b	88	52	0
Moree ..	b	93	68	0
Moruya ..	b	76	54	0
Moss Vale	b	76	55	0
Mt. Hope	b	76	66	0
M. Vict'ria	c	75	53	0
Mudgee ..	g	90	59	0
M'r'm'bh	g	84	52	0
M'r'r'ndi	o	82	63	0
Mus'br'k	b	95	65	0
Narrabri	b	97	54	0·17
Newcastle	g	89	66	0
Nowra ..	b	82	52	0
Orange ..	b	71	50	0
Picton ..	b	82	62	0
P. M'q'rie	b	80	67	0·02
P. St'ph'n	c	80	57	0·23
Q'nbeyan	b	75	56	0
Quirindi	b	90	65	0
Singleton	g	88	65	0
SYDNEY ..	c	77	67	0
Tamw'rth	--	--	--	--
Taralga ..	b	80	50	0
Taree	g	87	70	0
T'nt'rfield	b	88	54	0
Wagga ..	b	68	45	0
Walcha ..	b	84	52	0·02
Walgett..	b	92	70	0
W'ntw'rth	c	85	52	0
Wilcannia	u	--	--	0
Young ..	b	100	51	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., **b** standing for blue sky; **c**, detached clouds; **d**, drizzling rain; **f**, fog; **g**, gloomy; **h**, hazy; **m**, misty; **n**, frosty; **o**, overcast; **p**, passing showers; **r**, rain; **s**, snow; **t**, thunder; **u**, threatening. The next column, Mx gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature; **r**in, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CE, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wa, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light S. and W. winds on south coast, and W. wind and calm on west coast; barometers risen, and sea smooth; gloomy, and rainfall 0·06 at Albany. Extremes of barometers and temperature, 30·32 and 56° at Perth, 29·84 and 83° at Cossack.

South Australia.—Generally fine, with northerly winds and calm, risen barometers and smooth sea; gloomy at Peake and Faina. Rainfall at Port Darwin, 0·15. Extremes of barometers and temperature: 30·23 at Adelaide, 29·88 and 65° at Port Darwin, and 55° at M'Donnell Bay.

Victoria.—Generally fine and cool, with dew in early morn, light northerly winds and moderate sea. Rainfall at lake entrance, 0·33. Extremes of barometers and temperature: 30·26 and 56° at Omeo, 30·15 at Ballarat, 68° at Echuca. Foggy and misty at Cape Schanck.

Tasmania.—Generally fine, but cloudy, with dew and fog in early morn, light variable winds, risen barometers and smooth sea. Extremes of barometers and temperature: 30·25 and 40° at Low Heads, 29·87 at Southport, and 64° at Circular Head.

New Zealand.—Generally fine, with south-east wind on Middle Island. Barometers very high, and showery, with strong S.E. wind at Gisbourne. Extremes of barometers and temperature: 30·50 and 48° at Bluff, 30·30 at Gisbourne, and Russell 65°.

New South Wales.—Generally unsettled, with southerly winds, risen barometers, and smooth sea. Light rain falling at a few scattered stations on and near the coast; and at 9 a.m. it was still raining at Camden Haven. As a consequence of the cloudy weather the temperature has fallen generally. Extremes of barometers and temperature: 30·27 at Wentworth, 29·92 at Wagga, 67° at Walgett, and 37° at Cooma. Extra stations: Gundarra, max. 90, min., 60, calm and fine Morangarell, max. 87°, min. 53°, S. wind and fine. For further particulars see map.

Queensland.—Generally fine, with light S.E. winds in south, and calm in north. Almost steady barometers, and moderate sea. Rainfall: Brisbane, 0·01; Townsville, 0·03. Extremes of barometers and temperature: 30·18 at Brisbane, 29·75 at Townsville, 89° at Cooktown, and 76° at Rockhampton.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, N., 8, misty, moderate sea, temperature, 66°; Melbourne, S.E., 8, cloudy and hazy, temperature 74°; Cape Otway, W., 8, fine, but cloudy and hazy, smooth sea, temperature 72°; Lakes Entrance, E., 23, cloudy, moderate sea, temperature 67°; Portland, S.W., 18, fine, smooth sea, temperature 68°; Wilson's Promontory, N.E., 23, fine, but cloudy, moderate sea, temperature 60°.

New South Wales.—Cape St. George, S., 28, fine, smooth sea, temperature 88°; Clarence River, S.E., 11, fine, smooth sea, temperature 78°; Deniliquin, calm, fine, temperature 70°; Dubbo, E., 14, fine, temperature 80.; Eden, E., 14, fine, light sea, temperature 71°; Goulburn, calm, fine, temperature 71°; Menindie, calm, showery, temperature 70°; Moruya, S.E., 14, fine, smooth sea, temperature 71°; Newcastle, S.S.E., 14, fine, smooth sea, temperature 71°; Port Macquarie, S., 14, fine, smooth sea, temperature 80°; Sydney, S.E., 6, fine but cloudy, smooth sea, temperature 73°; Wentworth, calm, dull and threatening, temperature 69°.

STATE OF RIVERS.

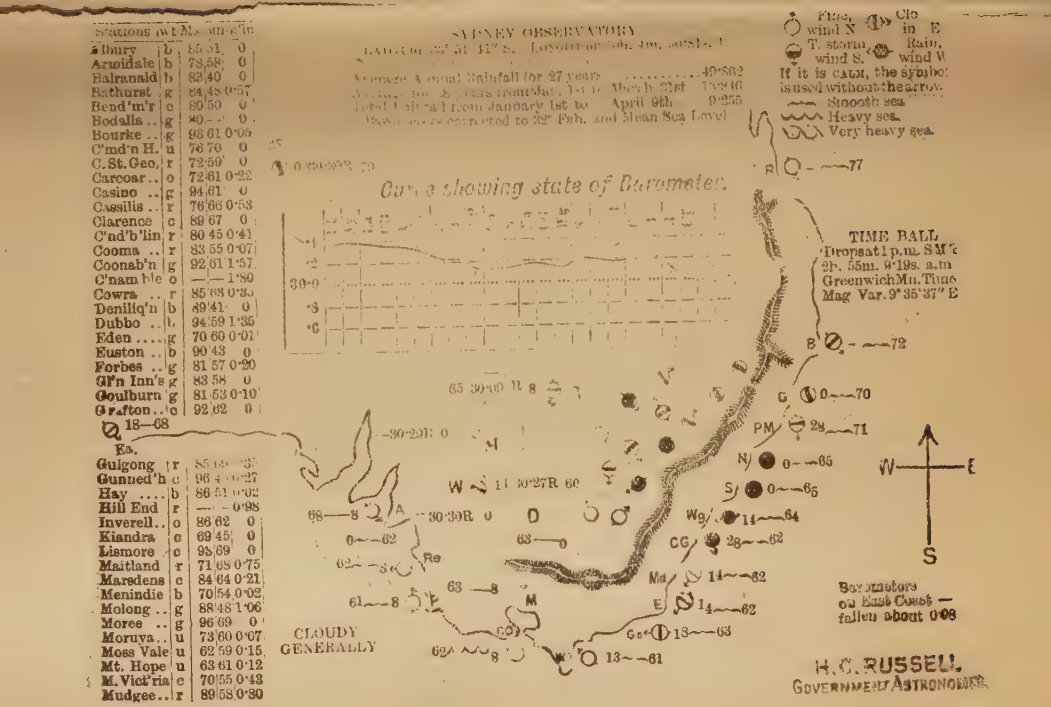
Murrumbidgee: At Wagga, 0 feet 3 inches above summer level, Hay, low; Balranald, 3 feet below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 1 foot above summer level; at Poon-carie, 1 foot above summer level; at Menindie, 1 foot 11 inches above summer level; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 9.

Sun rises at 6.29 a.m., sets at 5.44 p.m.; Moon, 9.40 a.m., 8.0 p.m.; Mercury, 6.27 a.m., 5.37 p.m.; Venus, 2.52 a.m., 3.38 p.m.; Mars, 3.58 p.m., 2.56 a.m.; Jupiter, 4.51 p.m., 4.45 a.m.; Saturn, 12.6 p.m., 9.58 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 9: 11.14 a.m., 11.35 p.m.

Stations (W.T. M'x	M'n	Rain
Albury b	85	51 0
Armidale b	78	58 0
Balranald b	82	40 0
Bathurst g	84	48 0·57
Bend'm'r c	80	50 0
Bodalla .. g	80	— 0
Bourke .. g	93	61 0·05
C'md'n H. u	76	70 0
C. St. Geo. r	72	59 0
Carcoar .. o	72	61 0·22
Casino .. g	94	61 0
Cassilis .. r	76	66 0·58
Clarence c	89	67 0
C'nd'b'lin r	80	45 0·41
Cooma .. r	83	55 0·07
Coonab'n g	92	61 1·57
C'nam'ble o	—	— 1·80
Cowra .. r	85	68 0·35
Deniliq'n b	89	41 0
Dubbo .. b	94	59 1·35
Eden .... g	70	60 0·01
Euston .. b	90	43 0
Forbes .. g	81	57 0·20
Gf'n Inn's g	83	58 0
Goulburn g	81	53 0·10
Grafton .. c	92	62 0
Gulgong r	85	48 0·35
Gunned'h c	96	4 0·27
Hay .... b	86	51 0·02
Hill End r	—	— 0·98
Inverell .. o	86	62 0
Kiandra .. c	69	45 0
Lismore .. c	93	69 0
Maitland r	71	68 0·75
Maredens c	84	64 0·21
Menindie b	70	54 0·02
Molong .. g	88	48 1·06
Moree .. g	96	69 0
Moruya .. u	73	60 0·07
Moss Vale u	62	59 0·15
Mt. Hope u	63	61 0·12
M. Victoria c	70	55 0·43
Mudgee .. r	89	58 0·30
M'rr'm'bh u	90	57 0·23
M'rr'ndi o	78	63 0·42
Mus'br'k g	79	61 0·44
Narrabri g	91	61 0·16
Newcastle r	75	66 0·39
Nowra .. n	75	58 0·05
Orange .. g	75	53 0·80
Picton .. r	77	62 0·24
P. M'q'rie c	84	67 0
P. St'ph'n c	78	55 0·25
Q'nbeyan b	74	59 0·15
Quirindi g	93	70 0·26
Singleton u	75	60 0·90
SYDNEY .. r	72	64 0·07
Tamw'rth g	90	64 0·01
Taralga .. g	83	51 0·15
Taree .... b	83	70 0
T'nt'rfield g	86	58 0
Wagga .. b	75	60 0
Walcha .. b	76	60 0
Walgett .. r	97	66 0·08
W'ntw'rth b	84	49 0
Wilcannia b	—	— 0·10
W'll'ng'ng r	78	62 0
Young .. r	94	54 0·15



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Cloudy on south coast, with variable winds, high barometers, and smooth sea; fine, with light E. and S.E. winds and smooth sea on west coast; no rain fallen. Extremes of barometers and temperature: 30·36 and 57° at Albany, 89 and 80° at Cossack.

South Australia.—Generally cloudy, with light southerly winds, high barometers, and smooth sea. Rainfall: Alice Springs, 0·79; threatening rain and cool inland. Extremes of barometers and temperature: 30·30 and 79° at Alice Springs, 30·22 and 60° at Donnell Bay.

Victoria.—Generally fine, with light W. and N.W. winds, high barometers, and smooth sea, except at Cape Otway, where it is rough, misty, and foggy, with heavy dew in early morn along the coast, but no rain fallen. Extremes of barometers and temperature: 30·22 at Melbourne, 30·14 at Echuca, 66° at Horsham, and 44° at Lakes Entrance.

Tasmania.—Generally fine, but cloudy, with light variable winds and smooth sea, no rain fallen. Extremes of barometers and temperature: 30·12 and 74° at Low Heads, and 29·99 and 59° at Southport.

New Zealand.—Generally fine, with S. and E. winds and calm, but high barometers, extremes of which are: at Bluff and Kaington 30.60, and at Russell 30·20.

New South Wales.—Last night's rain was very general throughout the colony, except the south-west parts. The heaviest fall took place at Gulgong, Coonabarabran, Coonamble, and Dubbo, beyond the mountains, and to north-west of Sydney. To-day, 9 a.m., it was raining more or less heavily at 15 stations, scattered within a radius of about 200 miles from Sydney, some on the coast, others on the mountains; but at only two places, viz., Cooma and Wollongong was it raining to the south of Sydney. Generally, however, it was cloudy and threatening, but calm. Extra stations: Bundarra, max. 89°, min. 58°, rain 0·03, cloudy and calm; Morangarell, max. 89°, min. 61°, rain 0·19, cloudy; Temora, dull and cloudy, rain 0·11. For further particulars see map.

Queensland.—Generally fine, with light southerly winds, risen barometers, and moderate sea. Rainfall: Brisbane, 0·01; Rockhampton, 0·03. Extremes of barometers and temperature: 30·22 and 72° at Brisbane, 29·61 at Townsville, and 89° at Cooktown.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, S., 14, cloudy, smooth sea, temperature 66°; Clarence River, E., 14, dull, smooth sea, temperature 77°; Deniliquin, S., 14, fine, temperature 72°; Dubbo, calm, cloudy, temperature 72°; Eden, S.W., 14, fine, smooth sea, temperature 71°; Goulburn, E.S.E. 14, dull, temperature 68°; Moruya, S.S.E., 23, fine, smooth sea, temperature 70°; Newcastle, S.E., 14, dull, smooth sea, temperature 68°; Port Macquarie, S.E., 14, cloudy, smooth sea, temperature 80°; Sydney, S.S.E., 10, misty and rain, smooth sea, temperature 66°; Walgett, S., fine but close and suitry, temperature 85°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 3 inches above summer level; Hay, summer level; Balranald, 3 feet below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 1 foot above summer level; at Pooncarie, 2 foot above summer level; at Menindie, 2 foot 10 inches above summer level; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 10.

Sun rises at 6.20, sets at 5.43; Moon, 11.37 a.m., 9.53 p.m.; Mercury, 6.17 a.m., 5.31 p.m.; Venus, 2.52 a.m., 3.37 p.m.; Mars, 3.54 p.m., 2.52 a.m.; Jupiter, 4.47 p.m., 4.41 a.m.; Saturn, 12.2 p.m., 9.54 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 10: 11.59 a.m., — p.m.

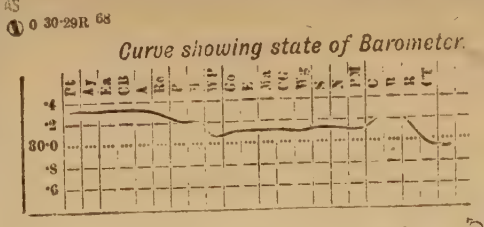
Stations	wt	Mx	Mn	R'in
Albury	b	85	48	0
Armidale	c	82	60	0·02
Balranald	b	100	41	0
Bathurst	u	64	58	0·70
Bend'm'r	u	76	43	0
Bodalla ..	b	73	60	0·01
Bourke ..	b	91	62	0
C'md'n ..	c	77	64	0·20
C. St. Ge..	b	71	57	0
Carcoar ..	g	82	61	0·02
Casino ..	b	87	60	0
Cassilis ..	o	73	66	0·05
Clarence	b	82	66	0
C'nd'b'lin	c	73	45	0
Cooma ..	f	77	38	0
Coonab'n	g	81	62	0·05
C'nam ble	b	—	—	0
Cowra ..	b	81	59	0·13
Deniliq'n	b	89	45	0
Dubbo ..	—	—	—	—
Eden	b	74	60	0
Euston ..	b	92	51	0
Forbes ..	b	90	56	0
Gl'n Inn's		83	39	0
Goulburn	g	67	39	0
Grafton ..	c	83	65	0
Ea.				
Guigong	u	76	67	0·17
Gunned'h	r	82	68	0
Hay	b	86	51	0
Hill End	c	—	—	0·21
Inverell ..	o	83	66	0
Kiandra	n	66	31	0
Lismore	b	84	65	0·06
Maitland	u	75	65	0·26
Marsdens	b	75	59	0·02
Menindie	b	78	58	0
Molong ..	c	64	54	0·45
Moree ..	g	87	69	0
Moruya ..	b	74	52	0
Moss Vale	u	64	56	0·17
Mt. Hope	b	65	62	0
M. Vict'ria	c	62	50	1·37
Mudgee ..	u	75	59	0·08
M'rr'm'bh	b	83	54	0
M'rr'r'ndi	o	73	63	0·72
Mus'lbr'k	u	77	62	0·29
Narrabri	o	84	61	0·02
Newcastle	g	69	65	0·60
Nowra ..	—	—	—	—
Orange ..	g	64	56	0·60
Picton ..	u	70	44	0·25
P. M'q'rie	g	80	67	0·65
P. St'ph'n	c	77	55	0·71
Q'nbeyan	b	69	50	0
Quirindi	g	85	69	0·02
Singleton	u	74	61	0·05
SYDNEY ..	o	68	63	0·21
Tamw'rth	g	85	65	0·06
Taralga ..	b	73	51	0·15
Taree	g	73	68	0·47
T'nt'rfield	b	85	54	0
Wagga ..	b	67	45	0
Walcha ..	g	76	57	0·04
Walgett ..	u	88	64	0
W'ntw'rth	b	86	52	0
Wilcannia	c	—	—	0
W'll'ng'ng	g	68	62	0·15
Young ..	b	84	49	0·02

SYDNEY OBSERVATORY.

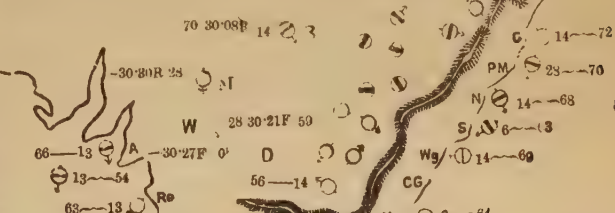
LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.....49·862
Average for 28 years from Jan. 1st to March 31st 13·846
Total Rainfall from January 1st to April 10th 9·462
Barometers corrected to 32° Fah. and Mean Sea Level

Fine, Cl
wind N in E
T. storm, Rain.
wind S. wind W
If it is CALM, the symbol is used without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.



TIME BALL
Drops at 1 p.m. S.M.T
2h. 55m. 9·19s. a.m
Greenwich Mn. Time
Mag. Var. 9° 35′ 37″ E



Barometers on East Coast — fallen about 0·05

CLOUDY GENERALLY

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy, with light E. and S.E. winds, fallen barometers, and smooth sea. No rain reported. Extremes of barometers rnd temperature: 30·36 and 50° at Esperance Bay, 29·97 and 81° at Carnarvon.

South Australia.—Generally fine and cool on coast, cloudy and threatening inland, with light southerly winds, risen barometers, and smooth sea. Rainfall: 0·30 at Alice Springs and Tennant's Creek. Extremes of barometers and temperature: 29·84 and 84° at Port Darwin, 30·32 at Adelaide, and 54° at Cape Borda.

Victoria.—Generally showery and overcast, with fresh westerly winds, almost steady barometers, and rough sea on south coast, moderate on S.E. coast. Passing showers of light misty rain at Portland, Hamilton, and Wilson's Promontory. Squally and misty, with rough sea, at Cape Otway and Cape Schanck. Extremes of barometers and temperature: 30·26 and 64° at Horsham, 30·03 and 59° at Wilson's Promontory. Rainfall at Portland, 0·02.

Tasmania.—Generally fine, but cloudy, with fresh squally westerly winds, fallen barometers, and moderate sea. Extremes of barometers and temperature: 30·05 at Circular Head, 29·90 at Falmouth, 64° at Southport, and 53° at Hobart. No rain fallen.

New Zealand.—Generally fine, with light variable winds and calm, fallen barometers, and smooth sea. No rain reported. Extremes of barometers: 30·20 at Russell, and 30·10 at Bluff and Wellington.

New South Wales.—Generally unsettled and cloudy, with fallen temperature; on coast slightly fallen barometers, light S. and W. winds, and smooth sea; inland risen barometers, southerly winds and calm. Yesterday's rain was generally light, and confined to the central parts of the eastern division of the colony, being heaviest at Mount Victoria. At 9 a.m. to-day it was raining at Gunnedah and Camden. Extremes of barometers and temperature at 9 a.m.: 30·36 at Wentworth, 30·07 at Wollongong, 73° at Inverell, and 48° at Cooma. Extra stations: Bundarra, max. 83°, min. 62°, overcast, cool, and calm; Morangarell, max. 82°, min. 52°, raintall, 0·05, S.E. wind and fine; Camden, showery, rainfall 0·85, overcast and dull. For further particulars see map.

Queensland.—Generally fine, with light southerly winds and moderate sea. Rainfall: Brisbane, 0·15; Rockhampton, 0·01. Extremes of barometers and temperature: 30·24 and 73° at Brisbane, 29·75 at Townsville, and 89° at Cooktown.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, calm, fine, smooth sea, temperature 72°; Clarence River, N.E., 10, fine, smooth sea, temperature 72°; Deniliquin, S., fine, temperature 71°; Dubbo, N.W., fine, temperature 74°; Eden, S., 14, fine, smooth sea, temperature 71°; Goulburn, W., 10, fine, temperature 69°; Menindie, S., fine, temperature 71°; Moruya, S., 30, fine, smooth sea, temperature 74.; Newcastle, S.E., 10, cloudy, smooth sea, temperature 70°; Port Macquarie, S., 40, unsettled, smooth sea, temperature 78°; Sydney, S.S.E., 10, fine, smooth sea, temperature 71°; Wentworth, S.W., fine, clear, temperature 66°; Walgett, S.W., cloudy, hot, temperature 84°

STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 inches above summer level; Hay, summer level; Balranald, low. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 11 inches above summer level; at Pooncarie, 2 feet 2 inches above summer level; at Menindie, 1 foot 9 inches above summer level; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 12.

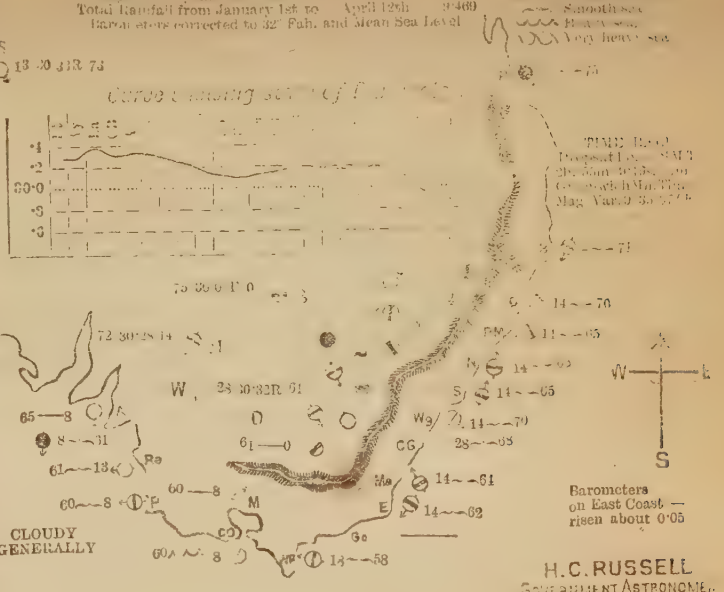
Sun rises at 6.21, sets at 5.40; Moon, 1.26 p.m., 11.52 p.m.; Mercury, 5.58 a.m., 5.18 p.m.; Venus, 2.51 a.m., 3.35 p.m.; Mars, 3.45 p.m., 2.43 a.m.; Jupiter, 4.38 p.m., 4.32 a.m.; Saturn, 11.55 a.m., 9.47 p.m. New moon, 5th; full moon, 19th.
High water at Fort Denison, April 12: 1.15 a.m., 1.50 p.m.

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 47″ S. LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years..... .....49·962
Average for 28 years from Jan. 1st to March 31st 13·346
Total Rainfall from January 1st to April 12th 9·469
Barometers corrected to 32° Fah. and Mean Sea Level

Stations	wt	Mx	Mn	R'in
Albury	c	84	47	0
Armidale	u	75	53	0·02
Balranald	g	79	53	0·04
Bathurst	b	92	36	0
Bend'm'r	c	78	55	0·23
Bodalla ..	g	—	—	0
Bourke ..	g	101	70	0
C'md'n H.	c	76	63	0
C. St. Geo.	b	73	64	0
Carcoar ..	r	70	60	0·08
Casino ..	c	84	63	1·34
Cassilis ..	g	73	61	0
Clarence	o	79	67	0·53
C'nd'b'lin	g	79	41	0
Cooma ..	c	77	47	0
Coonab'n	d	80	62	0·06
C'nam ble	–	—	—	–
Cowra ..	g	80	60	0
Denliliq'n	b	90	38	0
Dubbo ..	r	80	60	0·36
Eden	b	67	59	0
Euston ..	g	86	55	0
Forbes ..	c	78	51	0·05
Gl'n Inn's	c	89	54	0
Goulburn	b	76	51	0
Grafton ..	o	93	66	1·15
Gulgong	b	78	65	0
Gunned'h	–	—	—	–
Hay	b	80	57	0
Hill End	–	—	—	–
Inverell ..	o	83	58	0
Kiandra	n	67	32	0
Lismore	r	79	70	0·29
Maitland	u	76	59	0·01
Marsdens	b	83	56	0
Menindie	c	—	—	0
Molong ..	g	87	53	0·11
Moree ..	c	92	66	0·10
Moruya ..	b	96	60	0
Moss Vale	u	66	56	0·20
Mt. Hope	b	69	61	0
M. Vict'ria	c	69	49	0
Mudgee ..	r	88	55	0·05
M'rr'm'bh	o	88	55	0
M'rr'ndi	c	73	59	0·35
Mus'br'k	g	85	55	0·05
Narrabri	u	88	59	0·02
Newcastle	o	75	64	0
Nowra ..	g	73	59	0·06
Orange ..	r	71	51	0
Picton ..	u	77	57	0
P. M'q'rie	b	76	60	0·09
P. St'ph'n	b	80	57	0
Q'nbeyan	b	72	53	0
Quirindi	g	90	73	0·76
Singleton	u	76	65	0·24
SYDNEY ..	o	73	62	0
Tamw'rth	g	78	59	0
Taralga ..	c	79	57	0·14
Taree	g	73	62	0·55
T'nt'rfield	g	82	59	0
Wagga ..	c	69	43	0·66
Walcha ..	g	64	53	0·07
Walgett ..	u	91	67	0·09
W'ntw'rth	b	77	55	0
Wilcannia	b	—	—	0·02
W'll'ng'ng	c	75	60	9
Young ..	g	100	51	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b stands for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; r, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. R'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Fa, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light E. and S.E. winds, fallen barometers, and smooth sea; no rain reported. Extremes of barometers and temperature: 30·33 and 57° at Esperance Bay; 29·88 and 79° at Cossack.

South Australia.—Generally cloudy and gloomy, with southerly winds, high barometers, and smooth sea; light rain at Cape Borda and M'Donnell Bay. Extremes of barometer and temperature: 30·37 at Eucla; 29·86 and 85° at Port Darwin; and 59° at M'Donnell Bay.

Victoria.—Generally cloudy, gloomy, and threatening rain; rough sea off Cape Otway; misty and cold along the coast. Rainfall: Cape Schanck, 0·08; Portland, 0·07. Extremes of barometers and temperature: 30·25 and 65° at Horsham; 30·13 at Wilson's Promontory; and 54° at Ballarat.

Tasmania.—Generally cloudy and gloomy, with light westerly winds and moderate sea; passing shower at Southport. Extremes of barometers and temperature: 30·13 at Low Heads; 30·00 and 60° at Hobart; and 53° at Southport.

New Zealand.—Generally fine, with steady barometers and light variable winds. At Bluff, during the night, a very strong S.W. wind blew, and rain to the amount of 1·70 fell.

New South Wales.—Generally calm, gloomy, and threatening rain, with fallen temperature, risen barometers, and smooth sea; light rain fallen in the coast district, heaviest in the Clarence district; on Saturday night 2½ inches fell in one hour at Lawrence, and the total fall on Saturday and Sunday was 3·77; at Grafton and at Lismore over an inch fell. To-day at 9 a.m. it was raining at 6 stations near the mountains to west of Sydney; Mudgee reports thunderstorm. Extra stations: Morangarell, max. 80°, min. 60°, calm, and cloudy; Bundarra, max. 82°, min. 55°, calm and cloudy. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, S.E., 13, misty rain, smooth sea, temperature 63°; Melbourne, S.S.W., 8, cloudy, temperature 63°; Cape Otway, S., 13, passing showers, high sea, temperature 60°; Lakes Entrance, W., 18, passing showers, temperature 61°; Portland, S.S.W., 28, passing showers of misty rain, temperature 61.; Wilson's Promontory, W., 18, squally and cloudy, moderate sea, temperature 61°.

New South Wales.—Cape St. George, N., 28, cloudy, smooth sea, temperature 69°; Dubbo, calm, raining, temperature 62°; Eden, E., 14, fine, smooth sea, temperature 68°; Goulburn, N.E., 14, dull, temperature 67°; Menindie, S.W., 14, fine and clear, temperature 70°; Moruya, N.E., 28, dull, smooth sea, temperature 74°; Newcastle, calm, raining, smooth sea, temperature 69°; Port Macquarie, sultry, smooth sea, temperature 77°; [illegible] W.N.W., 9, drizzling and dull, smooth sea, tempera[illegible] Wentworth, S., 14, fine and clear, temperature 64°. Weath[illegible] been very stormy all day at Walgett and showery since n[illegible] rain has fallen. Much thunder and lightning all roun[illegible] 8 p.m.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 inch above summer [illegible] Hay, below summer level; Balranald, below sum[illegible] Murray: At Albury, low. Darling: At Wentworth, [illegible] Pooncarie, 2 feet 7 inches above summer level; at W[illegible] low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 13.

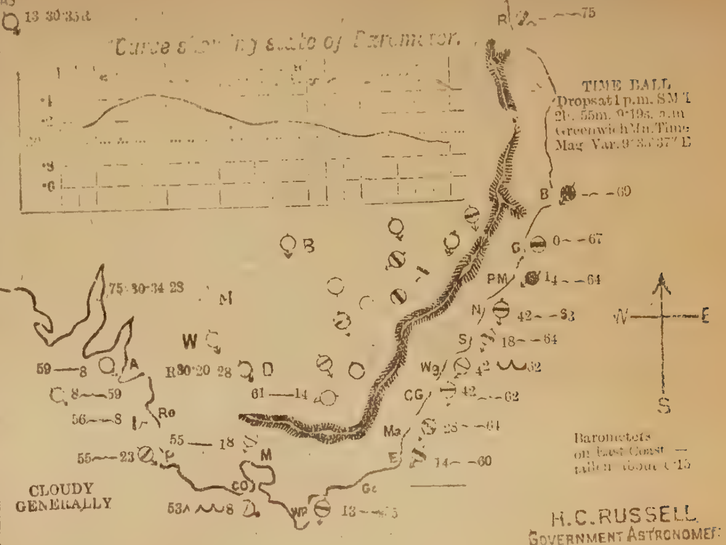
Sun rises at 6.22, sets at 5.38; Moon rises at 2.15 p.m.; Mer[illegible] 5.49 a.m., 5.11 p.m.; Venus, 2.51 a.m., 3.34 p.m.; Mars, [illegible] 2.39 a.m.; Jupiter, 4.34 p.m., 4.28 a.m.; Saturn, 11.52 a.m., [illegible] p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 13: 2.25 a.m., 3.6 p.m.

SYDNEY OBSERVATORY.
LATITUDE 33° 51' 41" S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 17 years ...... 49·862
Average for 28 years from Jan. 1st to March 31st 13·846
Total Rainfall from January 1st to April 13th 9·669
Barometers corrected to 32 Fah. and Mean Sea Level

Stations	W.T.	Max	Min	Rain
Albury	b	82	53	0
Armidale	u	79	55	1·0
Balranald	b	83	51	0
Bathurst	c	57	46	0·81
Bend'm'r	r	75	57	0·55
Bodalla	g	—	—	0·11
Bourke	b	91	59	0
C'md'n H	c	77	65	0
C. St. Geo.	g	91	59	0·28
Carcoar	b	60	51	0·73
Casino	c	79	65	0·54
Cassilis	o	63	60	1·57
Clarence	g	81	67	0·58
C'nd'b'lin	b	73	41	0
Cooma	c	81	42	0·13
Coonab'n	g	70	57	0·72
C'nam ble	-	—	—	-
Cowra	b	76	58	0·08
Deniliq'n	u	83	44	0
Dubbo	b	65	41	1·05
Eden	b	71	59	0
Euston	b	80	47	0
Forbes	c	76	53	0·31
Gl'n Inn's	b	73	54	2·55
Goulburn	g	70	53	0
Grafton	c	86	65	1·00
Gulgong	b	69	61	2·70
Gunned'h	g	84	60	0·93
Hay	b	80	50	0
Hill End	-	—	—	-
Inverell	o	83	58	1·12
Kiandra	-	—	—	-
Lismore	r	78	68	0·48
Maitland	r	75	42	0·82
Marsdens	b	75	60	0·02
Menindie	b	—	—	0
Molong	-	—	—	-
Moree	g	81	60	1·09
Moruya	u	77	60	0·14
Moss Vale	r	65	53	0·04
Mt. Hope	r	61	56	0
M. Vict'ria	b	68	49	0·72
Mudgee	b	65	47	1·53
M'rr'm'bh	b	78	58	0·01
M'rr'r'ndi	r	68	57	1·75
Mus'lbr'k	c	69	54	1·94
Narrabri	g	81	55	1·00
Newcastle	o	73	63	1·30
Nowra	-	—	—	—
Orange	b	59	46	0·78
Picton	u	68	58	0·01
P. M'q'rie	r	80	61	0·55
P. St'ph'n	r	78	55	1·17
Q'nbeyan	b	72	51	0
Quirindi	g	89	63	1·23
Singleton	u	68	56	1·40
SYDNEY	g	71	63	0·14
Tamw'rth	c	74	59	0·63
Taralga	g	—	48	0
Taree	g	79	65	0·39
T'nt'rfield	c	73	56	1·45
Wagga	b	65	46	0
Walcha	g	62	54	1·48
Walgett	b	86	60	0·72
W'ntw'rth	b	75	40	0
Wilcannia	-	—	—	-
W'll'ng'ng	o	73	60	0·02
Young	b	90	56	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River, B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light N. and E. winds, fallen barometers, and moderate sea; no rain fallen. Extremes of barometers and temperature: 30·26 and 58· at Esperance Bay; 29·87 at Cossack; and 81· at Carnarvon.

South Australia.—Generally fine, with light E. and S.E. winds, high barometers, and smooth sea. Rainfall: Daly Waters, 0·27; Port Lincoln, 0·02; M'Donnell Bay, 0·01; and Cape Borda, 0·02. Extremes of barometers and temperature: 30·41 at Adelaide; 29·84 and 86· at Port Darwin; and 55· at M'Donnell Bay.

Victoria.—Generally cloudy, and gloomy, with fresh south and easterly winds, high barometers, and moderate sea, except at Cape Otway, where it is rough. Rainfall: Omeo, 0·16; Cape Otway, 0·02; Portland, 0·03; Wilson's Promontory, 0·02; Melbourne, 0·02; Lakes Entrance, 0·19. The rain though general has been light. Extremes of barometers and temperature: 30·39 at Portland and Cape Otway, 30·18 at Echuca, 63· at Horsham, and 45· at Omeo.

Tasmania.—Generally fine but cloudy, with fresh southerly winds, high barometers, and moderate sea. Rainfall: Southport and Hobart, each 0·05. Extremes of barometers and temperature: 30·39 and 46· at Hobart, 33·34 at Circular Heads, and 54· at Falmouth.

New Zealand.—Generally fine, with light variable winds. Extremes of barometers: 30·30 at Russell, and 30·00 at Bluff.

New South Wales.—Generally cloudy, gloomy, and threatening rain, with strong southerly winds and smooth sea, except at Wollongong, where the sea is rough, and at Cape St. George, moderate. Heavy rain fallen in the coast and mountain districts north of Sydney; 16 stations report over an inch, heaviest at Gulgong and Glen Innes, where nearly three inches fell. To-day at 9 a.m. it was still raining at six stations in north coastal districts, heavy at Nelson Bay. Barometers have fallen on the coast, risen inland, especially in the S.W. parts, where no rain has yet fallen; temperature generally low. Extra stations: Nowra ... max. 73·, min. 58, rainfall 0·16; Bundarra, max. 72·, min ... 0·95, calm and cloudy; Morangarell, max. 78·, min. ... and fine; Lawrence, rainfall 0·82; Temora, ... and cloudy weather. For further particulars see map.

Queensland.—Cloudy in south, fine in north, with southerly winds, fallen barometers, and moderate sea; showery at Brisbane. Rainfall: Cape Moreton, 0·73; Brisbane, 0·22; and ... hampton, 0·04. Extremes of barometers and temperature: 3... and 69·, at Brisbane; 29·72 and 83·, at Townsville.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, S., 42, cloudy, moderate sea, temperature 65·; Deniliquin, S.E., fine, temperature 70·; Dubbo, calm, fine, temperature 70·; Eden, W.S.W., ... light E. sea, temperature 64·; Goulburn, S.E., 14, dull, ... ture 66·; Menindie, S.W., 28, fine and clear, tempera... Moruya, S., 42, cloudy, fresh gale, moderate sea, tem... 64·; Port Macquarie, S.S.W., 42, cloudy, smooth sea, t... ture 72·; Sydney, rain to day up to 9 p.m. 0·09, S.S... drizzling rain, moderate sea, temperature 64·; Wentwo... 14, fine, temperature 64·; Walgett, S., fine, temperature 7...

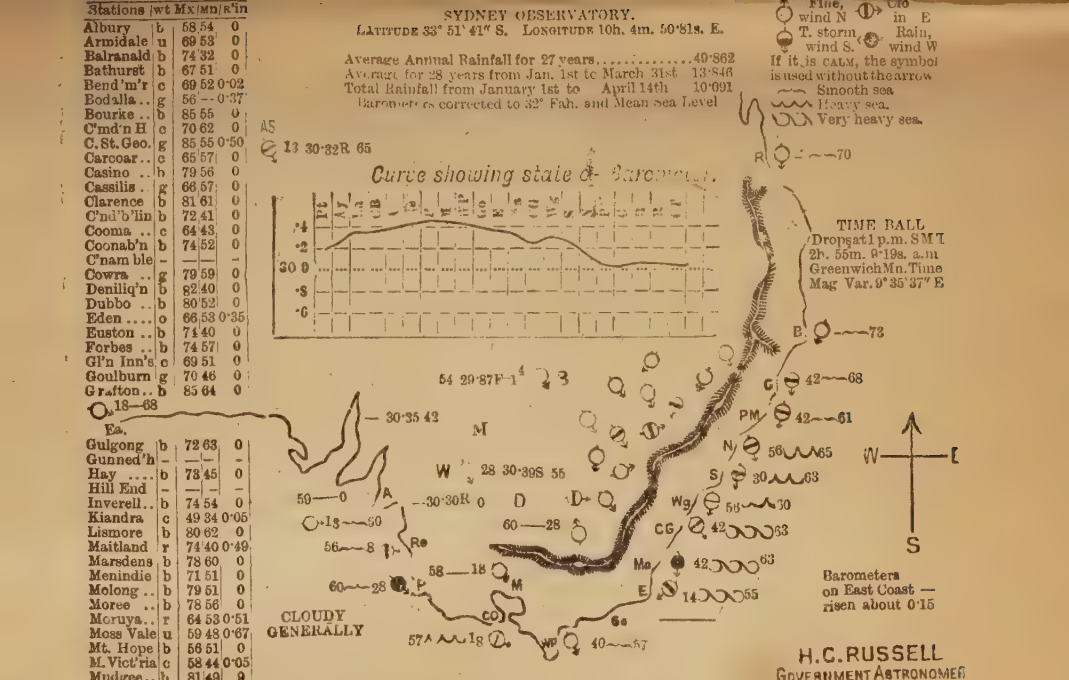
STATE OF RIVERS.

Murrumbidgee: At Wagga, summer level; Hay, sum... level; Balranald, 3 inches below summer level. **Murray** ... Euston, low. **Darling:** At Wentworth, 10 inches above sum... level; at Pooncarie, 3 feet 2 inches above summer level; Menindie, 1 foot 5 inches above summer level; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 14.

Sun rises at 6.23, sets at 5.37; Moon rises at 3 p.m., sets at 12.55 a.m.; Mercury, 5.39 a.m., 5.5 p.m.; Venus, 2.50 a.m., 3.32 p.m.; Mars, 3.36 p.m., 2.34 a.m.; Jupiter, 4.29 p.m., 4.23 a.m.; Saturn, 11.48 a.m., 9.40 p.m. New moon, 5th; full moon, 19th. High water at Fort Denison, April 14: 3.46 a.m., 4.27 p.m.

Stations	wt	Mx	Mn	r'in
Albury	b	58	54	0
Armidale	u	69	53	0
Balranald	b	74	32	0
Bathurst	b	67	51	0
Bend'm'r	c	69	52	0·02
Bodalla	g	56	—	0·37
Bourke	b	85	55	0
C'md'n H	c	70	62	0
C. St. Geo.	g	85	55	0·50
Carcoar	c	65	57	0
Casino	b	79	56	0
Cassilis	g	66	57	0
Clarence	b	81	61	0
C'nd'b'lin	b	72	41	0
Cooma	c	64	43	0
Coonab'n	b	74	52	0
C'nam ble	–	—	—	–
Cowra	g	79	59	0
Deniliq'n	b	82	40	0
Dubbo	b	80	52	0
Eden	o	66	53	0·35
Euston	b	74	40	0
Forbes	b	74	57	0
Gl'n Inn's	c	69	51	0
Goulburn	g	70	46	0
Grafton	b	85	64	0
Gulgong	b	72	63	0
Gunned'h	–	—	—	–
Hay	b	73	45	0
Hill End	–	—	—	–
Inverell	b	74	54	0
Kiandra	c	49	34	0·05
Lismore	b	80	62	0
Maitland	r	74	40	0·49
Marsdens	b	78	60	0
Menindie	b	71	51	0
Molong	b	79	51	0
Moree	b	78	56	0
Moruya	r	64	53	0·51
Moss Vale	u	59	48	0·67
Mt. Hope	b	56	51	0
M. Vict'ria	c	58	44	0·05
Mudgee	b	81	49	9
M'rr'm'bh	c	80	61	0
M'rr'ndi	r	63	54	0·16
Mus'br'k	b	71	51	0·05
Narrabri	b	75	48	0
Newcastle	b	68	48	1·25
Nowra	g	77	54	0·65
Orange	b	64	49	0
Picton	o	68	52	0
P. M'q'rie	u	72	60	1·32
P. St'ph'n	r	77	55	1·57
Q'nbeyan	b	65	52	0
Quirindi	g	73	58	0
Singleton	u	65	52	0
Sydney	o	67	61	0·48
Tamw'rth	g	71	52	0
Taralga	r	72	38	0
Taree	b	71	61	0·20
T'nt'rfield	b	73	49	0·24
Wagga	g	65	55	0
Walcha	g	66	49	0·02
Walgett	b	76	58	0
W'ntw'rth	b	68	43	0
Wilcannia	b	—	—	0
W'll'ng'ng	o	67	57	0·27
Young	b	82	51	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., **b** standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River. B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light E. and S.E. winds and smooth sea; threatening at Cossack, with rough sea and E. wind; no rain fallen. Extremes of barometers and temperature: 30·20 and 60° at Esperance Bay, 29·90 at Cossack, and 80° at Carnarvon.

South Australia.—Generally cloudy and cold, with light E. and S.E. winds, almost steady barometers, and smooth sea; no rain reported. Extremes of barometers and temperature: 30·41 at Robe, 29·81 and 86° at Port Darwin, and 50° at Cape Borda.

Victoria.—Generally cloudy, gloomy, and cold, with strong S. and S.E. winds, high barometers, and rough sea. Rainfall: Portland, 0·01; Cape Otway, 0·06; Wilson's Promontory, 0·09; Lake Entrance, 0·57; Melbourne, 0·06; showery at Lakes Entrance and at Portland. Extremes of barometers and temperature: 30·46 and 57° at Cape Otway, 30·24 and 62° at Echuca.

Tasmania.—Generally fine, with southerly winds, and very high barometers. No rain reported. Extremes of barometers and temperature: 30·56 and 53° at Falmouth, 30·50 at Circular Head, and 43° at Hobart.

New Zealand.—Generally fine, with light southerly winds, and passing showers on west coast. Extremes of barometers: 30·20 at Russell, 30·30 at Bluff and Wellington.

New South Wales.—Generally cloudy, gloomy, and cold, with strong southerly winds and risen barometers. The sea is heavy and rough from Newcastle to Eden; moderate north of Newcastle. Rather heavy rain has fallen in coast districts; heaviest at Nelson's Bay and Newcastle. To-day, at 9 a.m., it was still raining at some of these places, and at others near the mountains in north. Extra stations:—Morangarell, max 83°, min. 57°, rainfall 0·03; Bundarra, max. 74°, min. 54°, rainfall 0·07. For further particulars see map. At Bega 0·37 rain fell on 13th.

Queensland.—Generally fine, with southerly winds and moderate sea. Rainfall: Brisbane, 0·21; Cape Moreton, 0·38; Rockhampton, 0·24. Extremes of barometers and temperature: 30·00 at Brisbane, 29·72 at Townsville, 68° at Cape Moreton, and 89° at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Barometers steady. Melbourne, S.E., 18, squally, temperature 65°; Cape Otway, E.S.E., 30, squally, misty, rough sea, temperature 59°; Portland, E.S.E., 36, fine, smooth sea, temperature 62°; Cape Shank, E., 26, misty, high sea, temperature 60°; Wilson's Promontory, E., 36, squally, moderate sea, temperature 58°

New South Wales.—Cape St. George, S.S.E., 56, cloudy, temperature 65°; Clarence River, S., 42, fine, rising sea, temperature 65°; Deniliquin, S., fine, temperature 73°; Eden, S.E., 14, cloudy, heavy sea, temperature 60°; Goulburn, S.E., 42, cloudy, Menindie, S.W., fine and clear, temperature 75°; Newcastle, S.E., 42, stormy, heavy sea, temperature 66°; Sydney, S.S.W., 32, raining, heavy sea, temperature 60°; Wentworth, E., 14, fine, temperature 63°; Walgett, S.E., fine, temperature 76° Fall at Sydney, 9 a.m. to 9 p.m. to-day, 0·48.

STATE OF RIVERS.

Murrumbidgee: At Wagga, summer level; Balranald, 3 feet below summer level. Murray: At Albury, below summer level; Euston, low. Darling: At Wentworth, 9 inches above summer level; at Pooncarie, 2 feet 11 inches above summer level; at Menindie, 1 foot 4 inches above summer level; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 15.

Sun rises at 6.24, sets at 5.36; Moon, 3.42 p.m., 2 a.m.; Mercury, 5.33 a.m., 5.1 p.m.; Venus, 2.50 a.m., 3.31 p.m.; Mars, 3.32 p.m., 2.30 a.m.; Jupiter, 4.25 p.m., 4.19 a.m.; Saturn, 11.44 a.m., 9.36 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 15: 5.7 a.m., 5.42 p.m.

Albury	b	72	47	0
Armidale	g	62	52	0
Balranald	b	87	35	0
Bathurst	g	61	49	0
Bend'm'r	g	62	49	0
Bodalla ..	r	—	—	0·18
Bourke ..	b	87	55	0
C'md'n H	c	70	60	0·23
C. St. Geo.	r	82	51	0·62
Carcoar ..	g	59	51	0
Casino ..	b	80	49	0
Cassilis ..	b	64	43	0
Clarence	b	81	58	0
C'nd'b'lin	b	74	37	0
Cooma ..	c	57	43	0·01
Coonab'n	b	—	—	0
C'nam ble	b	68	46	0
Cowra ..	g	72	51	0
Deniliq'n	b	82	38	0
Dubbo ..	b	74	47	0
Eden	r	62	54	0·03
Euston ..	b	83	45	0
Forbes ..	b	70	48	0
Gl'n Inn's	b	69	46	0
Goulburn	g	59	41	0
Grafton ..	b	83	56	0
Ga.				
Gulgong	b	69	59	0
Gunned'h	—	—	—	—
Hay	b	79	44	0
Hill End	c	—	—	0
Inverell ..	b	70	49	0
Kiandra	c	45	32	0·04
Lismore	b	81	56	0
Maitland	g	71	52	0·08
Marsdens	b	74	51	0
Menindie	b	71	52	0
Molong ..	b	75	48	0
Moree ..	b	85	53	0
Moruya ..	r	64	53	0·21
Moss Vale	c	54	44	0·03
Mt. Hope	b	58	52	0
M. Vict'ria	r	53	46	0·65
Mudgee ..	b	79	44	0
M'r'm'b'h	b	76	46	0
M'rr'r'ndi	c	62	53	0
Mus'br'k	c	71	55	0
Narrabri	b	75	42	0
Newcastle	c	67	56	0·81
Nowra ..	r	64	52	0·47
Orange ..	b	58	43	0
Picton ..	g	64	51	0
P. M'q'rie	b	72	59	0
P. St'ph'n	c	77	54	2·72
Q'nbeyan	c	59	49	0
Quirindi	c	69	57	0
Singleton	n	64	54	0
SYDNEY ..	r	66	57	0·95
Tamw'rth	g	67	57	0
Taralga ..	c	76	42	0
Taree	r	72	59	0·46
T'nt'rfield	b	72	43	0
Wagga ..	b	62	40	0
Walcha ..	u	58	48	0
Walgett ..	b	75	51	0
W'ntw'rth	b	76	48	0
Wilcannia	—	—	—	—
W'll'ng'ng	o	67	55	0·22
Young ..	b	85	40	0

Average Annual Rainfall for 27 years..... 49·862
Average for 28 years from Jan. 1st to March 31st 3·346
Total Rainfall from January 1st to April 14th 12·041
barometers corrected to 32° Fah. and Mean Sea Level

T. storm, Rain, wind N wind W
If it is CALM, the symbol is used without the arrows
smooth sea
Heavy sea.
Very heavy sea.

TIME BALL

CLOUDY GENERALLY

Barometers on East Coast — fallen about 0·15

H. C. RUSSELL.
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, finally, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W.T. Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine and calm in S. and S.W. parts; misty and dewy in early morn along the coast. Extremes of barometers and temperature: 30·28 and 54° at Esperance Bay, 30·23 and 65° at Perth. No reports from north.

South Australia.—Generally fine and cool, with light E. and S.E. winds, fallen barometers, and smooth sea. Rainfall: Port Darwin, 0·06. Extremes of barometers and temperatures: 30·41 and 56° at Macdonnell Bay, 29·81 and 86° at Port Darwin.

Victoria.—Generally cloudy, with fresh E and S.E. winds, and smooth sea on S.W. coast; strong E. and S. winds and rough sea on S. and S.E coast. Rainfall at Echuca. 0·08; extremes of barometers and temperature, 30·39 and 60° at Portland, 30·26 and 55° at Echuca.

Tasmania.—Generally fine, but cloudy, with fresh southerly winds and rough sea. Extremes of barometers and temperature, 30·52 and 45° at Hobart, 30·48 and 55° at Circular Head. No rain fallen.

New Zealand.—Generally fine, with strong S.W. and W. winds, and very high barometers, extremes of which are 30·70 at Wellington and Bluff, and 30·10 at Russell.

New South Wales.—Weather continuing gloomy, cold, and stormy along the coast, with strong south-west wind and very heavy sea. Rain has fallen at 16 stations scatttered along the coast and mountains, and at 9 a.m. this morning it was still raining at eight of these, but principally on the coast, south of Sydney. Gabo Island reports gale increasing, threatening, squally, gloomy, and overcast; sea rough and rising. Inland the weather is fine, with fresh southerly winds and fallen temperature. Extremes of barometers and temperature: 30·39 at Wentworth, 29·94 at Port Macquarie, 67° at Clarence, and 37° at Kiandra. Extra stations: Bundarra, max. 72°, min. 47°, S. wind, fine and cool; Morangarell, max. 76°, min. 44°, S. wind, fine but cloudy. (For further particulars see map.)

Queensland.—Generally fine, with light southerly winds, fallen barometers, and moderate sea; no rain reported. Extremes of barometers and temperature: 30·05 and 70° at Brisbane, 29·67 at Townsville, and 89° at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, E., 34, squally and cloudy, smooth sea, temperature 50°; Melbourne, S.E., 18, cloudy and gloomy, temperature 60°; Cape Otway, S.E., 18, cloudy and squally, moderate sea, temperature 58°; Portland, E.S.E., 28, fine but cloudy, smooth sea, temperature 61°; Wilson's Promontory, S.E., 48, cloudy, squally, rough sea, temperature 56°.

New South Wales.—Cape St. George, S., 56, gale, thick heavy rain, heavy sea, temperature 56°; Deniliquin, S., 14, fine, temperature 61°; Dubbo, E., fine, temperature 66°; Eden, S.S.W., 42, cloudy, and raining, very heavy sea, temperature 57°; Goulburn, S.S.W., showery, temperature 59°; Menindie, S.W., fine and clear, temperature 67°; Moruya, S.W., 42, cloudy, mountainous sea, temperature 57°; Newcastle, S.S.W., 28, cloudy, heavy sea, temperature 67°; Port Macquarie, S.S.W., 42, fine, heavy sea, temperature 73°; Sydney, W.S.W., 23, overcast and gloomy, heavy sea, temperature 62°; Wentworth, S.W., 14, fine and clear, temperature 64°; Walgett, S.E., fine, temperature 74°.

STATE OF RIVERS.

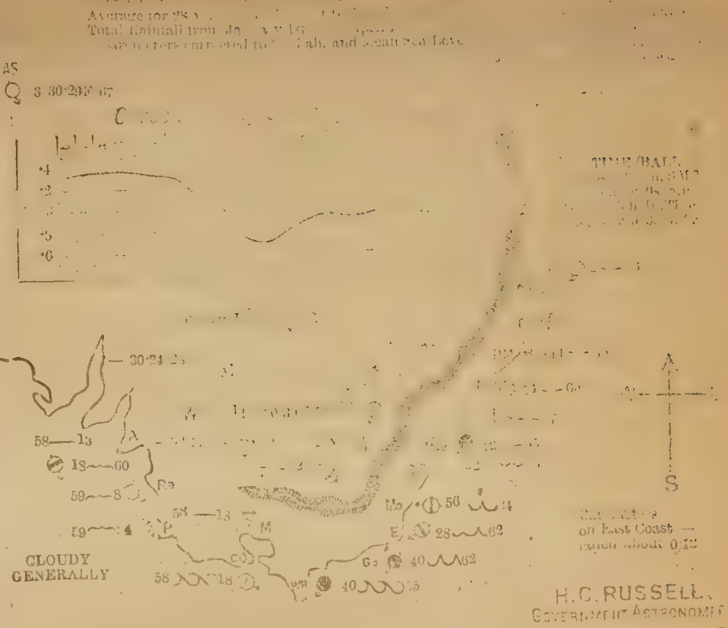
Murrumbidgee: At Balranald, below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 8 inches above summer level; at Pooncarie, 2 feet 10 inches above summer level; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 16.

Sun rises at 6.24, sets at 5.35; Moon, 4.23 p.m., 3.6 a.m.; Mercury, 5.27 a.m., 4.57 p.m.; Venus, 2.50 a.m., 3.30 p.m.; Mars, 3.28 p.m., 2.26 a.m.; Jupiter, 4.21 p.m., 4.14 a.m.; Saturn, 11.41 a.m., 9.33 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 16: 6.16 a.m., 6.14 p.m.

Stations	W.T.	Max	Min	Rain
Albury	u	65	50	0
Armidale	b	68	45	0
Balranald	b	84	39	0
Bathurst	g	55	43	0
Bend'm'r	g	[illegible]2	41	0
Bodalla	g	[illegible]	—	0·22
Bourke	b	81	46	0
Camden H	b	70	58	0
C. St. Geo.	b	74	51	2·00
Carcoar	g	77	48	1·20
Casino	c	82	51	0·22
Cassilis	b	63	51	0
Clarence	c	86	57	0·45
C'nd'b'lin	c	71	39	0
Cooma	r	52	45	0
Coonab'n	b	71	40	0
C'nam'ble	-	—	—	—
Cowra	g	71	52	0·66
Deniliq'n	g	73	43	0
Dubbo	b	71	46	0
Eden	g	62	56	0·76
Euston	b	84	43	0
Forbes	b	68	52	0
Gl'n Inn's	b	66	41	0
Goulburn	g	54	43	1·16
Grafton	b	85	56	0·40
Gulgong	c	69	58	0
Gunned'h	b	72	50	0·05
Hay	—	74	47	0
Hill End	u	—	—	0
Inverell	b	71	46	0
Kiandra	b	46	25	0·02
Lismore	b	86	59	0
Maitland	g	69	55	0
Marsdens	c	69	54	0·04
Menindie	b	72	51	0
Molong	c	68	47	0
Moree	b	84	52	0
Moruya	b	65	53	0.42
Moss Vale	r	56	45	3·38
Mt. Hope	b	56	50	0
M. Vict'ria	r	51	40	0·43
Mudgee	g	76	48	0
M'rr'm'bh	g	66	48	0·20
M'r'r'ndi	u	64	53	0
Mus'lbr'k	b	71	49	0
Narrabri	b	72	43	0
Newcastle	b	64	55	0
Nowra	-	—	—	-
Orange	r	53	41	0·21
Picton	b	62	41	0·18
P. M'q'rie	b	71	52	0·03
P. St'ph'n	c	76	54	0
Q'nbeyan	c	56	50	0·15
Quirindi	b	73	51	0
Singleton	b	69	52	0
SYDNEY	c	64	53	0·20
Tamw'rth	b	68	43	0
Taralga	g	61	41	1·35
Taree	b	70	51	0
T'nt'rfield	b	68	41	0
Wagga	c	60	53	0
Walcha	n	63	37	0
Walgett	b	73	48	0
W'ntw'rth	b	74	45	0
Wilcannia	b	—	—	0
W'll'ng'ng	r	64	52	0·51
Young	u	72	42	0·24



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, [illegible] n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The [illegible] in the [illegible] of the margin. At each coast station the wind [illegible] placed [illegible] the weather; a circle with [illegible], cloudy coming. A [illegible] circle with it [illegible] the weather; [illegible] weather, and a black spot, rain. Next to this symbol are placed figures denoting the number of [illegible] the wind [illegible] moving per hour, next a symbol showing the state of the sea, and lastly, figures denoting the temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; La, Eucla; Cb, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given [illegible] at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the [illegible], beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Fine and calm, with high barometers, and smooth sea on south coast; cloudy and threatening, with east winds and rough sea on west coast; no rain reported. Extremes of barometers and temperature: 30·36 and 53· at Esperance Bay, 29·97 at Cossack, and 80· at Carnarven.

South Australia.—Generally cloudy and cool, with S.E. and E. winds, fallen barometers, and rough sea on south coast; fine and cool, with S.E. winds, inland and in Northern Territory; no rain reported. Extremes of barometers and temperature: 30·38 and 57· at M'Donnell Bay, 29·83 and 89· at Port Darwin.

Victoria.—Generally cloudy and showery, with strong southerly winds and heavy sea; passing showers at Wilson's Promontory, and tremendous sea; heavy rain at Lake Entrance. Extremes of barometers and temperature, 30·26 and 59· at Portland, 30·03 and 53· at Wilson's Promontory.

Tasmania.—Generally cloudy and gloomy, with strong southerly winds and rough sea; no rain reported. Extremes of barometer and temperature, 30·26 and 52· at Hobart, 30·10 at Low Heads, and 55· at Falmouth.

New Zealand.—Generally fine, with N.W. winds, and high but fallen barometers; passing showers and strong N.W. wind at Russell. Barometers: Russell 30·40, Wellington and Bluff, 30·50.

Queensland.—Generally fine, with southerly winds, fallen barometers, and moderate sea; no rain reported. Extremes of barometers and temperature: 30·00 and 66· at Brisbane, 29·69 at Townsville, and 89· at Cooktown.

New South Wales.—Generally unsettled, but wind and sea subsiding, except on southern parts of coast; barometers have fallen, and a depression is shown by the barometer curve to be about Eden and Moruya; N. and S. of it is rain with strong winds and rough sea. Winds are light from west on coast, southerly inland. Rain has fallen on coast districts, especially in southern parts; heaviest at Moss Vale, over 3 inches, and raining steadily at 9 a.m. At 9 a.m. it was raining on the mountains in several places to south and west of Sydney. Grafton had a heavy storm [illegible] evening. [illegible] Island reports rainfall 1·00, squally, very strong S.S.W. winds, showers, and high sea. Temora and Camden, 0·19 and 0·22 of rain respectively, and Morangarell, 0·18. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, E., 23, cloudy and misty, smooth sea, temperature 59·; Melbourne, S., 13, light rain, temperature 56·; Cape Otway, S., 23, squally and misty, rough sea, temperature 60·; Lake Entrance, W.S.W., 56, heavy rain, squally, high sea, temperature 59·; Portland, S.S.E., 34, squally, rough sea, temperature 61·; Wilson's Promontory, S.S.W., 48, cloudy and squally, showery, high sea, temperature 56·.

New South Wales.—Cape St. George, N.W., 42, cloudy, heavy sea, temperature 62·; Deniliquin, S.E., 14, fine, temperature 62·; Dubbo, S., cloudy, temperature 64·; Eden, S.W., 2[illegible], and heavy sea, temperature 64·; Goulburn, N., 14, fine, temperature 58·; Menindie, S.W., 42, fine and clear, temperature 64·; Moruya, E., 14, cloudy and showery, heavy sea, temperature 63·; Newcastle, W., 28, fine, moderate sea, temperature 66·; Port Macquarie, 28, fine, moderate sea, temperature 75·; Sydney, N., and gloomy, smooth sea, temperature 65·; Wentworth, fine and clear, temperature 62·.

STATE OF RIVERS.

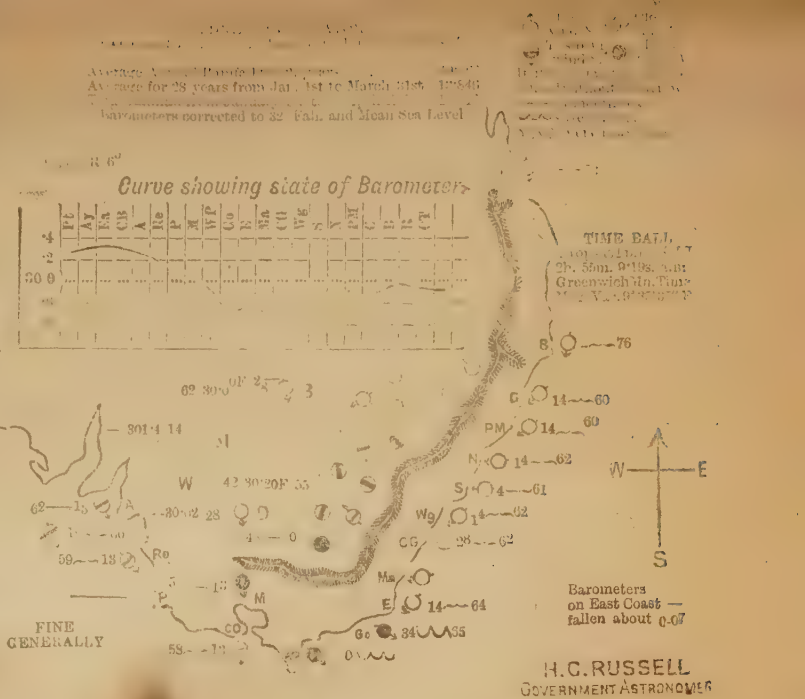
Murrumbidgee: At Wagga, summer level; at Hay [illegible]. Murray: At Albury, below summer level; at Euston [illegible]. Darling: At Wentworth, 8 inches above summer level; at Menindie [illegible]; at Wilcannia, 2 feet 9 inches above summer level; at Bourke 3 inches above summer level; at Wilcannia, low; at Brewarrina low.

ASTRONOMICAL MEMORANDA FOR APRIL 17.

Sun rises at 6.25, sets at 5.34; Moon, 5.[illegible] a.m.; Mercury, 5.21 a.m., 4.53 p.m.; Venus, 2.[illegible] p.m.; Mars, 3.24 p.m., 9.22 a.m.; Jupiter, 4.17 p.m., Saturn, 11.37 a.m., 9.29 p.m. New moon, 5th; full moon [illegible].

High water at Fort Denison, April 16: 7.11 a.m., 7.32 [illegible]

Stations	M'x	M'n	Rain
Albury			
Armidale			
Balranald b	76	38	0
Bathurst g	72	52	0
Bend'm'r b	64	36	
Bodalla .. b			
Bourke .. b	80	47	
C'nd'n H b	75	50	
C. St. Geo. b	66	48	0
Carcoar .. g	74	46	0
Casino .. b	83	47	0
Cassilis .. b	66	55	0
Clarence b	86	56	0
C'nd'b'lin b	69	35	0
Cooma .. c	61	49	0·02
Coonab'n g	66	44	
C'nam ble –	—	—	
Cowra .. g	64	53	0
Deniliquin b	70	45	
Dubbo .. b	66	41	0
Eden .... b	67	60	
Euston .. b	76	49	0
Forbes .. g	68	53	0
Gl'n Inn's b	68	38	0
Goulburn b	65	41	0
Grafton .. b	84	53	0
[illegible]			
Ga.			
Gulgong .. b	70	60	0
Gunned'h c	69	48	0
Hay .... b	72	50	0
Hill End .. c	—	—	0
Inverell .. b	69	41	0
Ki ndra .. f	50	39	0·04
Lismore .. b	86	52	0
Maitland .. b	70	51	0
Mar dens .. c	70	56	0
Menindie .. b	67	53	0
Molong .. c	67	49	0
Moree .. b	79	48	0
Mo. oya .. b	74	56	0·08
Moss Vale b	58	46	0·11
Mt. Hope b	63	30	0
M. Victoria b	55	43	0
Mudgee .. b	65	48	0
M'r'm'bh c	46	53	0
M'r'r'ndi u	61	42	0
Mus'br'k g	72	49	0
Narrabri b	71	40	0
Newcastle b	69	54	0
Nowra ..	—	—	–
Orange .. g	66	44	0
Picton .. b	64	47	0
P. M'q'rie b	75	51	0·03
P. St'ph'n b	78	55	0
Q'nbeyan c	63	47	0·03
Quirindi g	67	55	0
Singleton b	75	51	0
SYDNEY .. b	68	54	0
Tamw'rth g	68	41	0
Taralga .. b	73	51	0
Taree .. b	75	51	0
Tint'field b	67	53	0
Wagga .. c	59	44	0·03
Walcha .. n	61	33	0
Walgett .. b	71	47	0
W'ntw'rth b	70	48	0
Wilcannia –	—	—	–
Wilc'ng'ng b	68	54	0·03
Young .. g	72	44	0



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine on S. and S.W. coast, with light E. and S.E. winds. Extremes of barometers and temperature:—30·29 and 52° at Esperance Bay, 30·33 at Perth, and 55° at Geraldton.

South Australia.—Generally cloudy, gloomy and cool on south coast, and light southerly winds, falling barometers, and smooth sea. Inland and in Northern Territory.—Fine, with S.E. winds and calms; no rain reported. Extremes of barometers and temperature:—30.29 at Eucla, 29.86 and 85° at Port Darwin, and 57° at M'Donnell Bay.

Victoria.—Generally showery, cloudy, and gloomy, with strong southerly winds and fallen barometers; showery and squally, with high sea, on the whole S.E. coast. Rainfall: Lakes Entrance, 2·40; Wilson's Promontory, 0·45; Melbourne, 0·26; Omeo, 0·75; and Echuca, 0·07. Extremes of barometers and temperature: 30·10 at Cape Otway, 29·86 and 55° at Omeo, and 62° at Horsham.

Tasmania.—Generally cloudy, gloomy, and threatening, with strong southerly winds; rough sea on east coast; no rain reported. Extremes of barometers and temperature: 30·20 and 45° at Mortlake, 29·97 and 59° at Falmouth.

New Zealand.—Generally fine, with N.E. winds; cloudy at Russell. Barometers: 30·4 on North Island, 30·3 at Bluff; no rain reported.

Queensland.—Generally fine, with E. and S. winds, fallen barometers, and moderate sea in south, smooth in north, no rain reported. Extremes of barometers and temperature, 29·93 and 64° at Brisbane, 29·68 at Townsville, and 89° at Cooktown.

New South Wales.—Generally fine, with light westerly winds, slightly fallen barometers, and smooth sea on coast, except at Gabo Island, where it is showery from east, with rough sea, and rainfall 0·95. Inland it is fine, with fresh southerly winds, fallen barometers, except at Albury, where it is calm and drizzling rain, and very cold. Light rain has fallen at a few stations in coast and mountain districts south of Sydney, heaviest at Moruya and Eden. Extremes of barometers and temperatures 30·20, at Wentworth 29·73, and 65° at Gabo, and 43° at Kiandra. Extra stations: Bundarra, max. 75°, min. 40°, calm and fine; Mount Gambier, max. 64°, min. 51°, light W. wind, and cloudy. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, S., 18, threatening rain, moderate sea, temperature 66°; Portland, S.S.E., 24, fine, smooth sea, temperature 62°; Wilson's Promontory, S.W., 30, squally, high sea, temperature 60°.

New South Wales.—Cape St. George, W.N.W., 14, fine, temperature 70°; Clarence River, E.S.E., 10, fine, smooth sea, temperature 74°; Dubbo, W., 10, cloudy, temperature 67°; Eden, E., 14, fine, smooth sea, temperature 68°; Goulburn, N.W., cloudy, temperature 60°; Menindie, S.W., 28, fine, cold, temperature 65°; Moruya, S., 28, fine, moderate sea, temperature 63°; Newcastle, N.W., 10, fine, smooth sea, temperature 70°; Port Macquarie, S., 28, cloudy, smooth sea, temperature 74°; Sydney, N.N.E., 10, fine, smooth sea, temperature 70°; Wentworth, S., 40, fine, stormy, temperature 63°; Walgett, S.W., cloudy, like rain, temperature 70.

STATE OF RIVERS.

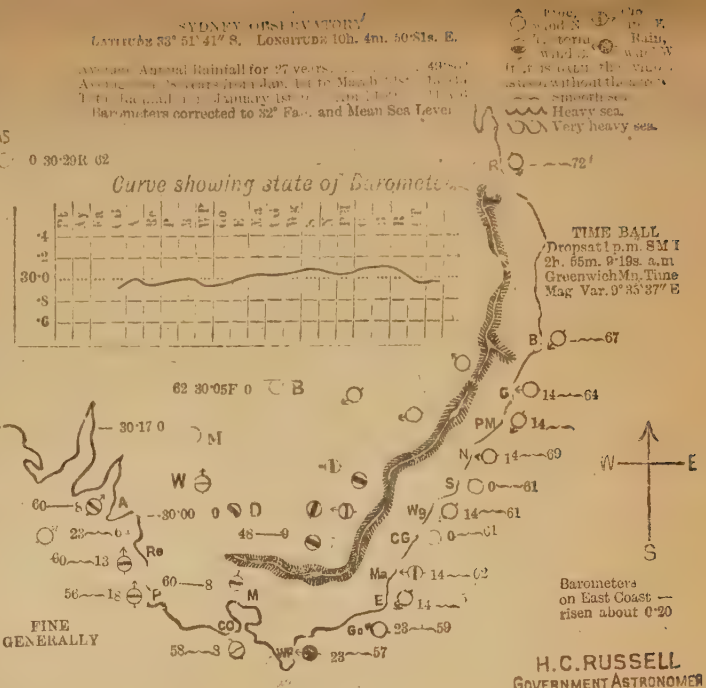
Murrumbidgee: At Wagga, summer level; at Balranald, 3 feet above summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 9 inches above summer level; at Menindie, 1 foot 2 inches above summer level.

ASTRONOMICAL MEMORANDA FOR APRIL 19.

Sun rises at 6.27, sets at 5.31; Moon, 6.24 p.m., 6.21 a.m.; Mercury, 5.9 a.m., 4.45 p.m.; Venus, 2.50 a.m., 3.27 p.m.; Mars, 3.16 p.m., 2.15 a.m.; Jupiter, 4.9 p.m., 4.1 a.m.; Saturn, 11.30 a.m., 9.22 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 19: 8.40 a.m., 9 p.m.

Stations	wt	Mx	mn	rain
Albury	b	73	47	0·23
Armidale	b	70	46	0
Balranald	b	80	36	0
Bathurst	b	61	31	0·05
Bend'm'r	b	64	45	0
Bodalla ..	g	—	—	0·14
Bourke ..	b	78	48	0
C'md'n H	b	75	56	0
C. St. Geo.	c	72	59	0
Carcoar ..	b	57	51	0·25
Casino ..	b	85	46	0
Cassilis .	b	63	52	0
Clarence	b	82	56	0
C'nd'b'lin	b	65	40	0
Cooma ..	c	65	47	0·41
Coonab'n	b	73	40	0
C'nam ble	b	—	—	0
Cowra ..	f	65	56	0·08
Deniliq'n	g	86	38	0
Dubbo ..	b	72	49	0·20
Eden	b	71	54	0·09
Euston ..	b	75	37	0
Forbes ..	b	66	51	0·10
Gl'n inn's	b	69	41	0
Goulburn	g	65	52	0
Grafton ..	b	86	44	0
Ea.				
Gulgong	b	69	60	0
Gunned'h	b	73	46	0
Hay	b	76	41	0
Hill End	b	—	—	0·26
Inverell..	b	72	45	0
Kiandra	c	55	40	0·79
Lismore	b	90	53	0
Maitland	b	71	53	0
Marsdens	b	72	55	0·04
Menindie	b	67	49	0
Molong ..	o	61	50	0·13
Moree ..	b	80	50	0
Moruya..	g	72	59	0
Moss Vale	o	63	51	0·38
Mt. Hope	b	60	50	0
M. Vict'ria	b	60	45	0·13
Mudgee..	b	69	43	0·07
M'rr'm'bh	b	63	51	0·16
M'rr'ndi	b	61	47	0·03
Mus'br'k	b	76	52	0·23
Narrabri	b	71	49	0
Newcastle	b	77	58	0
Nowra ..	c	74	54	0·29
Orange ..	b	56	44	0·34
Picton ..	b	72	50	0
P. M'q'rie	b	75	52	0
P. St'ph'n	b	80	57	0
Q'nbeyan	c	66	57	0·17
Quirindi	b	75	54	0
Singleton	b	66	54	0
Sydney ..	b	73	56	0·14
Tam'w'rth	b	69	49	0
Taralga ..	c	71	48	0
Tarce	b	78	55	0·05
T'nt'rfield	b	69	39	0
Wagga ..	b	69	44	0·16
Walcha ..	b	64	37	0
Walgett..	b	74	49	0
W'ntw'rth	g	67	50	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	74	55	0·10
Young ..	b	62	46	0·26



Barometers on East Coast — risen about 0·20

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b signifying for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; n, misty or rain, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth, Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Lines interrupted.

South Australia.—Generally fine and cool, with scattered clouds and light northerly winds on coast, calm inland, and S.E. winds in Northern Territory. Rainfall at Cape Borda, 0·07. Extremes of barometer and temperature:—30·29 at Alice Springs, 29·86 and 85° at Port Darwin, and 55° at M'Donnell Bay.

Victoria.—Generally cloudy and gloomy, with fresh N. and W. winds, and moderate sea. At Lakes Entrance the sea is high. Rainfall: Lakes Entrance, 1·97; Omeo, 1·07; Portland, 0·05; Melbourne, 0·07; Wilson's Promontory, 0·03; Ballarat, 0·04; Cape Schanck, 0·02. At 9 a.m. it was still raining at Wilson's Promontory and Lakes Entrance, with strong west winds. Extremes of barometer and temperature:—30·03 at Melbourne, 29·87 at Lakes Entrance, 62° at Horsham, and 52° at Omeo.

Tasmania.—Generally cloudy and gloomy, with light variable winds and calm, and moderate sea. Rainfall at Hobart 0·01, and still raining at 9 a.m. Extremes of barometer and temperature:—29·94 and 52° at Southport, 29·83 at Falmouth, and 60° at Low Heads.

New Zealand.—Cloudy on North Island, fine at Bluff; generally strong N. and N.W. winds. Rainfall: 1·01 at Wellington. Extremes of barometer:—30·20 at Russell, and 29·20 at Bluff.

New South Wales.—Generally fine and clear, with light westerly winds, and calm on coast, rising barometers, and smooth sea. Inland, cloudy and calm in the southern parts; fine in north. Light rain fallen in S. and S.E. parts on both sides of the mountains; heaviest at Kiandra. Extremes of barometer and temperature at 9 a.m.: 30·17, at Menindie; 29·87, at Wagga; 69°, at Newcastle; and 46° at Kiandra. Extra stations: Bundarra, max. 75°, min. 43°, calm and fine; Morangarell, max. 64°, min. 50°, calm and fine. For further particulars see map.

Queensland.—Generally fine, with light winds from S. and W., in southern parts; calm and fine in north; barometers rising and sea smooth. Rainfall: 0·35, at Rockhampton; and 0·02, at Townsville. Extremes of barometer and temperature, 30·12 and 67° at Brisbane; 29·72 at Townsville, and 89° at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, N.W., 13, cloudy and misty, smooth sea, temperature 60°; Melbourne, N.N.E., 8, cloudy, temperature 63°; Cape Otway, N.W., 8, cloudy and gloomy, smooth sea, temperature 62°; Lakes Entrance, N., 18, cloudy, moderate sea, temperature 64°; Portland, N.W., 28, cloudy and threatening, smooth sea, temperature 64°; Wilson's Promontory, W., 23, cloudy and squally, moderate sea, temperature 60°.

New South Wales.—Cape St. George, S.S.E., 14, fine, smooth, temperature 70°; Clarence River, S.E., 14, fine, smooth sea, temperature 76°; Dubbo, calm, fine, temperature 70°; Eden, E., 14, fine, smooth sea, temperature 65°; Goulburn, N.W., dull, temperature 63°; Menindie, S.W., 14, fine, temperature 66°; Moruya, N E., 28, fine, smooth sea, temperature 67°; Newcastle, S.E., 14, fine, smooth sea, temperature 63°; Port Macquarie, E., 14, fine, smooth sea, temperature 77°; Sydney, E.N.E., 11, fine and clear, smooth sea, temperature 67°; Wentworth, N.W., 28, fine, temperature 62°; Walgett, N.E., 14, fine, temperature 74°.

STATE OF RIVERS.

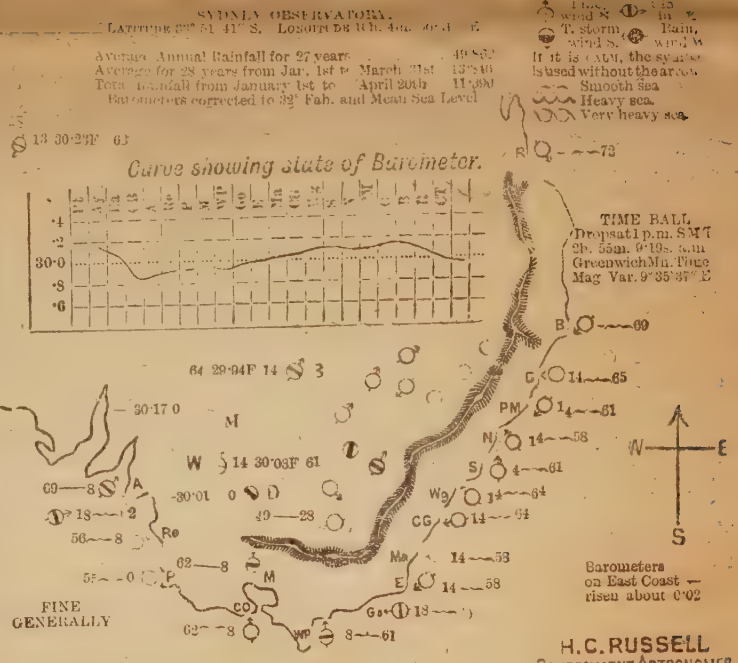
Murrumbidgee: At Wagga, summer level; at Hay, below summer level; at Balranald, low. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 10 inches above summer level; at Pooncarie, 2 feet 7 inches above summer level; at Menindie, 1 foot above summer level; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 20.

Sun rises at 6.27, sets at 5.30; Moon, 7.7 p.m., 7.24 a.m.; Mercury, 5.3 a.m., 4.41 p.m.; Venus, 2.51 a.m., 3.26 p.m.; Mars, 3.12 p.m., 2.11 a.m.; Jupiter, 4.5 p.m., 3.56 a.m.; Saturn, 11.27 a.m., 9.19 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 20: 9.20 a.m., 9.40 p.m.

Stations	wt	Mx	mn	
Albury	b	70	47	0
Armidale	b	71	44	0
Balranald	b	91	37	0
Bathurst	b	89	42	0
Bend'm'r	n	66	37	0
Bodalla	b	—	—	0
Bourke	g	83	50	0
C'nd'n H	b	76	56	0
C. St. Geo.	b	71	62	0
Carcoar	b	60	49	0
Casino	b	86	46	0
Cassilis	b	68	50	0
Clarence	b	84	57	0
C'nd'b'lin	g	72	38	0
Cooma	c	71	37	0
Coonab'n	h	78	40	0
C'nam ble	g	—	—	0
Cowra	b	72	50	0
Denliq'n	b	76	50	0
Dubbo	b	56	46	0
Eden	b	70	56	0
Euston	–	—	—	–
Forbes	b	69	48	0
Gl'n Inn's	b	71	41	0
Goulburn	b	72	40	0
Grafton	b	86	43	0
Gulgong	b	70	58	0
Gunned'h	b	75	48	0
Hay	b	78	46	0
Hill End	b	—	—	0
Inverell	b	71	63	0
Kiandra	c	55	39	0
Lismore	b	89	53	0
Maitland	b	70	54	0
Marsdens	c	73	51	0
Menindie	–	—	—	–
Molong	c	75	45	0
Moree	b	85	54	0
Moruya	b	71	52	0
Moss Vale	b	65	50	0
Mt. Hope	b	59	52	0
M. Vict'ria	b	62	47	0
Mudgee	b	78	42	0
M'rr'm'bh	b	73	47	0
M'rr'ndi	b	66	48	0
Mus'br'k	b	76	45	0
Narrabri	b	79	45	0
Newcastle	f	74	56	0
Nowra	b	74	53	0
Orange	b	62	41	0
Picton	f	71	51	0
P. M'q'rie	b	73	55	0
P. St'ph'n	b	80	54	0
Q'nbeyan	–	—	—	–
Quirindi	b	75	48	0
Singleton	b	75	49	0
Sydney	h	70	56	0
Tamw'rth	b	75	43	0
Taralga	b	69	40	0
Taree	b	73	55	0
T'nt'rfield	b	71	42	0
Wagga	b	70	46	0
Walcha	b	66	37	0
Walgett	b	76	51	0
W'ntw'rth	g	76	55	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	74	55	0
Young	g	83	44	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Mx gives the maximum temperature for previous 24 hours. And the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind-symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast—Fine with light east winds and rough and moderate sea. On south coast—Cloudy and gloomy, with fresh westerly winds and smooth sea. Extremes of barometers and temperature:—30·22 at Esperance Bay, 29·97 and 77° at Cossack, and 52° at Albany. No rain fallen.

South Australia.—Generally cloudy and gloomy, with fresh south and easterly winds, and smooth and moderate sea. Stormy and threatening at Eucla and along the south coast. Rainfall: Eucla, 0·23; Streaky Bay, 0·21; Port Lincoln and Wallaroo, each 0·02; and Cape Borda, 0·13. Extremes of barometers and temperature:—30·23 at Alice Springs, 29·76 at Streaky Bay, 88° at Port Darwin, and 54° at M'Donnell Bay.

Victoria.—Generally fine but cloudy, with light northerly winds and smooth sea. Wilson's Promontory reports 0·01 of rain; misty and hazy on coast. Extremes of barometers and temperature:—30·21 at Cape Schanck, 29·87 and 50° at Hamilton, and 73° at Charlton.

Tasmania.—Generally cloudy and gloomy, with west winds and calms and moderate sea. Heavy showers at Low Heads. Rainfall: Low Head, 0·05; Falmouth, 0·36; Hobart, 0·53. Extremes of barometers and temperature:—Generally 29·93, 48° at Hobart, and 57° at Low Heads.

New Zealand.—Generally fine, with north winds. Cloudy at Russell, and barometer at 30·20: at Bluff, 29·29.

Queensland.—Generally fine, with light southerly winds, and moderate sea. Heavy showers and rainfall 0·82 at Townsville. Extremes of barometers and temperature, 30·11 and 69° at Brisbane, 29·69 at Townsville, and 89° at Cooktown.

New South Wales.—Generally fine and clear. On coast light westerly winds, almost steady barometer, and smooth sea. Inland light N.E. winds and calms, and fallen barometer; no rain fallen, but foggy and heavy dew on coast this morning. Extremes of barometers and temperature at 9 a.m., 30·16 at Armidale, 29·87 at Wagga, 67° at Hay, and 44° at Cooma. Extra Stations: Bundarra, Max. 76°, min. 41°, calm, fine, and hazy. Morangarell, max. 72°, min. 46°, calm, fine, and cool. Warrah, max. 74°, min. 48°, calm, fine, and clear. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, N.W., 8, fine and misty, smooth sea, temperature 64°; Melbourne, W., 8, fine, temperature 72°; Cape Otway, W., 8, fine but cloudy, smooth sea, temperature 67°; Lakes Entrance, E., 18, fine but cloudy, smooth sea, temperature 67°; Portland, N.W., 13, fine, smooth sea, temperature 64°; Wilson's Promontory, W., fine but cloudy, smooth sea, temperature 69°.

New South Wales.—Cape St. George, N.N.W., 14, fine, smooth sea, temperature 73°; Deniliquin, calm, fine, temperature 70°; Dubbo, W., 14, fine, temperature 69°; Eden, N.E., 14, fine, light, E., smooth sea, temperature 66°; Goulburn, calm, fine, temperature 63°; Moruya, E.S.E., 14, dull and cloudy, smooth sea, temperature 58°; Newcastle, N.E., 14, fine, smooth sea, temperature 70°; Port Macquarie, N.N.E., 28, fine, smooth sea, temperature 76°; Sydney, E., 12, fine, smooth sea, temperature 59°; Wentworth, N., 14, fine, temperature 68°; Walgett, calm, dull and cloudy, temperature 80°.

STATE OF RIVERS.

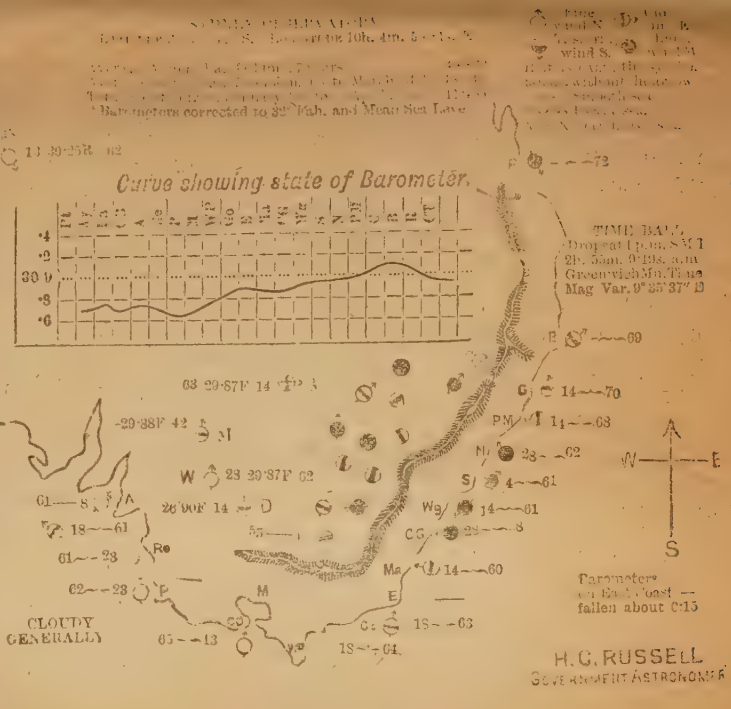
Murrumbidgee: At Wagga, summer level; at Hay, below summer level; at Balranald, 3 feet below summer level. Murray: At Albury, below summer level. Darling: At Wentworth, 10 inches above summer level; at Pooncarie, 2 feet 6 inches above summer level; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 21.

Sun rises at 6.28, sets at 5.29; Moon, 7.52 p.m., 8.25 a.m.; Mercury, 4.58 a.m., 4.38 p.m.; Venus, 2.51 a.m., 3.25 p.m.; Mars, 3.8 p.m., 2.8 a.m.; Jupiter, 4.0 p.m., 3.52 a.m.; Saturn, 11.27 a.m., 9.15 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 21: 10 a.m., 10.20 p.m.

Stations	wt	Ma	min	rain
Albury	c	78	49	0
Armidale	g	74	57	0
Balranald	b	95	61	0
Bathurst	g	71	49	0·56
Beg'd'm'r	–	–	–	–
Bodalla ..	–	–	–	–
Bourke ..	u	79	61	0·01
C'md'n H	u	77	63	0
C.St.Geo.	r	77	61	0
Carcoar ..	r	82	55	0·60
Casino ..	u	86	61	0
Cassilis ..	u	70	54	0·55
Clarence	c	84	56	0
C'nd'b'lin	g	70	41	0
Cooma ..	r	73	43	0·09
Coonab'n	r	80	53	1·27
C'nam ble	u	–	–	1·00
Cowra ..	r	77	57	0·03
Deniliq'n	b	85	52	0
Dubbo ..	r	80	56	0·93
Eden	–	–	–	–
Euston ..	b	93	48	0
Forbes ..	g	69	53	0·42
Gl'n Inn's	g	74	38	0
Goulburn	g	72	49	0·19
Grafton ..	u	84	44	0
Gulgong	u	71	60	0·61
Gunned'h	r	75	47	0·90
Hay	b	83	51	0
Hill End	–	–	–	–
Inverell ..	r	76	57	0·34
Kiandra	r	58	41	0·19
Lismore	g	84	63	0
Maitland	n	75	57	0
Marsdens	e	79	54	0
Menindie	g	81	55	0
Molong ..	r	73	53	0·89
Moree ..	r	82	57	1·00
Moruya ..	g	73	57	0
Moss Vale	r	66	54	0·23
Mt. Hope	u	65	53	0
M.Vict'ria	r	65	54	0
Mudgee ..	g	78	51	0·55
M'rr'm'bh		74	49	0·27
M'rr'ndi		71	53	0·44
Mus'lbr'k	r	79	53	0·29
Narrabri	g	83	53	1·36
Newcastle	r	75	59	0·07
Nowra ..	c	75	53	0·06
Orange ..	r	63	48	0·85
Picton ..	r	75	57	0·11
P. M'q'rie	g	76	59	0
P. St'ph'n	r	80	56	0·15
Q'nbeyan	r	66	48	0·13
Quirindi	r	79	50	0·73
Singleton	g	75	54	0·20
Sydney ..	r	70	62	0·08
Tamw'rth	–	–	–	–
Taralga ..	r	79	43	0·33
Taree ..	–	–	–	–
T'nt'rfield	g	78	56	0
Wagga ..	c	72	55	0
Walcha ..	g	70	69	0
Walgett ..	u	79	57	0·76
W'ntw'rth	b	84	53	0
Wilcannia	b	–	–	0
W'll'ng'ng	r	77	59	0·02
Young ..	c	83	51	0·20



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b signifying fair to blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; u, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M's gives the maximum temperature for previous 24 hours. Min'm the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; La, Lucia; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M., Melbourne; WP, Wilson's Promontory; Co, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast generally fine, with light east winds and moderate sea. On south coast, showery and cloudy, with strong squally winds and rough sea. No rain reported. Extremes of barometers and temperature at 9 a.m.: 30·17 at Geraldton, 29·72 at Albury, 60° at Esperance Bay, and 80° at Carnarvon.

South Australia.—Generally fine and cool, with light westerly winds on coast and smooth sea; S.E. winds inland and in northern territory; no rain reported. Extremes of barometers and temperature:—30·25 at Alice Springs, 29·65 and 57° at M'Donnell Bay, and 82° at Port Darwin.

Victoria.—Generally fine, with fresh squally north winds, low barometers, and smooth sea; no rain reported. Extremes of barometers and temperature:—29·83 and 55° at Omeo, 29·62 at Portland, and 65° at Cape Otway.

Tasmania.—Generally fine but cloudy, with light north winds, low barometers, and smooth sea. Rainfall at Hobart, 0.02. Extremes of barometers and temperature:—29·72 at Low Heads, 29·59 at Hobart, 67° at Circular Heads, and 83° at Falmouth.

New Zealand.—Generally cloudy, with S.E. winds on North Island; passing showers from E. at Bluff on Middle Island. Barometers:—Russell, 30·3, and Bluff, 30·2.

New South Wales.—Generally cloudy, gloomy, and raining, with light variable winds, low temperature, fallen barometers, and smooth sea. Light rain has fallen in the coast and mountain districts, from Murrurundi N.W. of Newcastle in north, to Cooma and Kiandra in south; and at 9 a.m. it was still raining at 18 stations scattered over that part of the country. Moderate rain has fallen beyong the mountains in the Darling watershed; ffom ¾ to 1¼ inch rain is reported at 10 stations scattered along the tributaries of the Darling, and at seven of these it was still raining steadily at 9 a.m. this morning. Extra Stations: Pooncarie, fine weather, river falling. Bundarra, max. 79°, min. 56°; rainfall, 0·32, and dull. Morangarell, max. 74°, min. 58°, threatening rain. Warrah, max. 75°, min. 50°; rainfall, 0·70, and threatening. For further particulars see map.

Queensland.—Generally cloudy in south, with N. and W. winds, and steady barometers; fine in north, with south wind, and calm; sea moderate. Raining at Rockhampton. Rainfall: Rockhampton, 0·70; Townsville, 0·90; Brisbane, 0·04. Extremes of barometers and temperature: 30·04 and 69° at Brisbane, 29·67 at Townsville, and 90° at Cooktown.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, N.W., 14, cloudy, smooth sea, temperature 67°; Deniliquin, N.W. fine, temperature 73°; Dubbo, N.W., 14, showery, and thunder, temperature 67°; Eden, S.W., 14, fine, smooth sea, temperature 61°; Goulburn, N.W., fine, temperature 62°; Moruya, N.W., 14, fine, smooth sea, temperature 69°; Newcastle, N.W., 14, dull, smooth sea, temperature 55°; Port Macquarie, N., 23, cloudy, moderate sea, temperature 74°; Sydney, N., 15, fine, smooth sea, temperature 71°; Balranald, W., fine and clear.

STATE OF RIVERS.

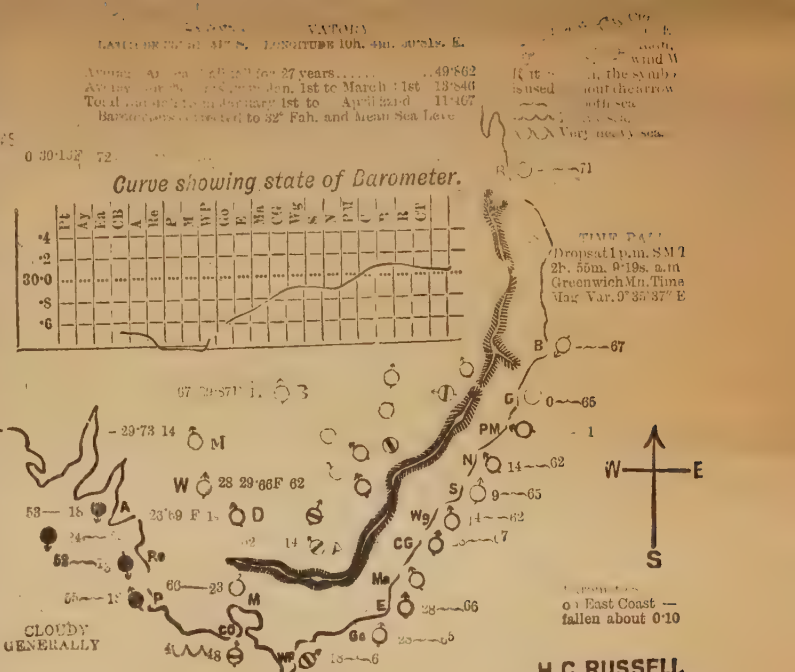
Murrumbidgee: At Wagga, summer level; at Hay, below summer level; at Balranald, 3 feet below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 10 inches above summer level; at Pooncarie, 2 feet above summer level; at Menindie, low; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 22.

Sun rises at 6.29, sets at 5.28; Moon, 8.39 p.m., 9.24 a.m.; Mercury, 4.55 a.m., 4.36 p.m.; Venus, 2.51 a.m., 3.24 p.m.; Mars, 3.4 p.m., 2.5 a.m.; Jupiter, 3.36 p.m., 3.48 a.m.; Saturn, 11.19 a.m., 9.11 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 22: 10.30 a.m., 10.59 p.m.

Stations	wt	Mx/mn	R'fn
Albury	u	71 57	0·01
Armidale	b	76 48	0·38
Balranald	b	91 50	0
Bathurst	b	63 42	0·03
Bend'm'r	c	62 47	0·46
Bodalla ..	b	—|—	0
Bourke ..	b	80 60	0
C'md'n H	b	77 56	0
C.St. Geo.	b	72 66	0
Carcoar ..	b	62 49	0·11
Casino ..	b	74 55	0·40
Cassilis .	b	67 49	0·54
Clarence	b	79 61	0·26
C'nd'b'lin	b	72 38	0
Cooma ..	g	65 46	0·03
Coonab'n	b	73 40	0·43
C'nam ble	g	—|—	0·10
Cowra ..	b	70 51	0·02
Deniliq'n	b	85 60	0
Dubbo ..	b	69 4	0·05
Eden	b	64 56	0·06
Euston ..	b	90 5?	0
Forbes ..	b	63 2	0·02
Gl'n Inn's	b	56 ·9	0· 9
Goulburn	b	63 44	0
Grafton ..	f	74 54	0·02
Ea.			
Gulgong	b	70 58	0·35
Gunned'h	b	69 50	0·02
Hay	b	81 56	0
Hill End	b	—|—	0·10
Inverell ..	c	66 52	0·76
Kiandra	c	48 40	0·11
Lismore	b	73 64	0·55
Maitland	b	72 55	0·13
Marsdens	b	73 54	0·13
Menindie	b	80 60	0
Molong ..	b	70 47	0·13
Moree ..	b	75 55	1·76
Moruya ..	b	73 59	0
Moss Vale	b	63 50	0
Mt. Hope	b	61 58	0
M. Vict'ria	b	58 45	0
Mudgee ..	f	72 41	0·12
M'rr'm'bh	b	66 51	0
M'rr'ndi	b	62 49	0·83
Mus'br'k	b	72 45	0·26
Narrabri	b	72 44	0·21
Newcastle	b	69 55	0·02
Nowra ..	b	—|—	0
Orange ..	b	60 40	0·18
Picton ..	b	69 43	0·06
P. M'q'rie	b	74 52	0
P. St'ph'n	b	80 57	0·15
Q'nbeyan	b	60 51	0·04
Quirindi	b	80 52	0·19
Singleton	b	71 51	0·10
SYDNEY ..	b	72 60	0
Tamw'rth	b	68 45	0·75
Taralga ..	b	71 47	0
Taree	b	71 53	0·03
T'nt'rfield	b	68 51	0
Wagga ..	b	67 54	0
Walcha ..	b	59 41	0·48
Walgett..	b	—|—	0
W'ntw'rth	b	84 59	0
Wilcannia	b	—|—	0
W'll'ng'ng	b	76 56	0
Young ..	b	67 47	0



NOTES EXPLANATORY OF MAP.

In the first column in the column headed W.I. gives the state of the weather at 9 a.m., by standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. And the corresponding minimum temperature; m'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the [illegible] miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M., Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River, B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—On south coast, and as far inland as Quorn, raining steadily, with strong southerly winds, low and falling barometers, and rough sea; inland and in Northern Territory generally fine, with light variable winds and calm. Rainfall: Robe, 1·01; Cape Borda, 0·85. Extremes of barometers and temperature: 30·16 at Alice Springs, 29·36 and 52° at Robe, and 83° at Port Darwin.

Victoria.—Generally cloudy, gloomy, and threatening rain, with strong squally northerly winds, and moderate sea; showery at Portland, rainfall 0·39; a gale blowing at Cape Otway from north, with rough sea. Extremes of barometers and temperature: 29·63 and 59° at Omeo, 29·37 at Cape Otway, and 67° at Wilson's Promontory.

Tasmania.—Generally cloudy and gloomy, with strong squally north winds, moderate sea, and very low barometers. The centre of barometric depression must be at or about Tasmania. Extremes of barometers and temperature: 29·38 at Low Heads, and 29·21 at Hobart; temperature generally, 61° and 62°. Rainfall: Low Heads, 0·11.

New Zealand.—Generally fine but dull with N.E. winds. Extremes of barometers: 30·50 at Gisborne, and 30·20 at Bluff.

New South Wales.—Generally fine and clear, with light northerly winds and fallen barometers; light rain has fallen in the coast and mountain districts north of Sydney; beyond the mountains the rain has been very general, though light in the watersheds of the river, but principally on the tributaries of the Darling; six stations report over half an inch, and Moree nearly 2 inches. Extremes of barometers and temperature at 9 a.m.: 30·04 and 68° at Clarence, 29·62 at Eden, and 52° at Mount Victotia. Extra stations: Temora, 0·45, rain; Bundarra, max. 61°, min. 48°, and heavy fog, rainfall 0·86; Morangarell, max. 71°, min. 54°, fine and cool, rainfall 0·02; Walgett, N.E. wind, max. 73°, min. 52°, fine and cool, rainfall 0·20. (For further particulars see map.)

Queensland.—Generally fine, with W. and S. winds in south and calm in north. Rainfall: Brisbane, 0·41; Cape Moreton, 0·78; Rockhampton, 0·64. Extremes of barometers and temperature: 30·08 and 67° at Brisbane, 29·73 at Townsville, and 92° at Cooktown.

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, N., 42, fine, smooth sea, temperature 71°; Clarence River, N.E., 14, fine, smooth sea, temperature 78°; Deniliquin, S., 11, dusty, temperature 72°; Dubbo, N.W., 14, fine, temperature 67°; Eden, N.E., 42, fine, light, E. sea, temperature 72°; Goulburn, N.W., fine, temperature 68°, Menindie, N.W., 14, fine, temperature 71°; Moruya, N., 42, fine, smooth sea, temperature 74°; Newcastle, W., 14, fine, smooth sea, temperature 77°; Port Macquarie, N.N.E., 28, fine, smooth sea, temperature 77°; Sydney, N., 14, fine but hazy, smooth sea, temperature 77°; Wentworth, W., 42, dull and cloudy, temperature 63°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, 10 inches above summer level; at Pooncarie, 2 feet 4 inches above summer level; at Menindie, low; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 23.

Sun rises at 6.30, sets at 5.27; Moon, 9.28 p.m., 10.19 a.m.; Mercury, 4.52 a.m., 4.34 p.m.; Venus, 2.51 a.m., 3.23 p.m.; Mars, 3; p.m., 2.1 a.m.; Jupiter, 3.52 p.m., 3.43 a.m.; Saturn, 11.16 a.m., 9.8 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison, April 23: 11.18 a.m., 11.39 p.m.

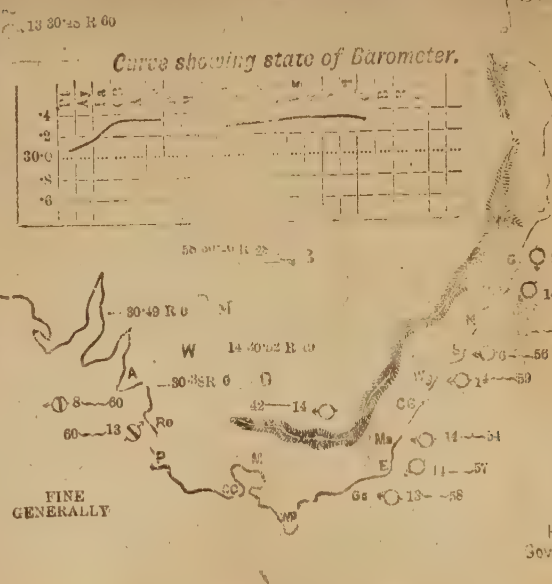
SYDNEY OBSERVATORY.

Latitude [illegible] Longitude 10h. 4m. [illegible] E.

Average Annual Rainfall for 27 years.........49·862
Average [illegible] years from Jan. 1st to March 31st 13·846
Total [illegible] 1st to April 26th 11·468
Barom. [illegible] to 32° Fah. and Mean Sea Level

Stations	W.T.	M'x	M'n	R'in
Albury	b	63	37	0
Armidale	b	65	39	0
Balranald	b	69	27	0
Bathurst	b	67	32	0
Bend'm'r	n	62	36	0
Bodalla	b	—	—	0
Bourke	b	76	43	0
C'md'n H	b	72	55	0
C. St. Geo.	–	—	—	–
Carcoar	n	55	46	0
Casino	b	72	56	0·09
Cassilis	b	62	41	0
Clarence	b	80	52	0·13
C'nd'b'lin	b	64	44	0
Cooma	n	67	28	0
Coonab'n	b	70	35	0
C'nam ble	b	—	—	0
Cowra	n	75	39	0
Deniliq'n	b	80	41	0
Dubbo	b	72	40	0
Eden	b	60	46	0
Euston	b	8?	31	0
Forbes	b	62	31	0
Gl'n Inn's	b	70	41	0
Goulburn	b	68	31	0
Grafton	b	72	54	0
Gulgong	b	63	50	0
Gunned'h	–	—	—	–
Hay	b	74	37	0
Hill End	b	—	—	0
Inverell	b	63	30	0
Kiandra	n	51	20	0
Lismore	–	—	—	–
Maitland	b	62	44	0
Marsdens	n	70	41	0
Menindie	b	67	43	0
Molong	–	—	—	–
Moree	b	82	56	0
Moruya	b	67	45	0
Moss Vale	–	—	—	–
Mt. Hope	b	53	46	0
M. Victoria	b	58	36	0
Mudgee	b	79	35	0
M'rr'm'bh	b	74	46	0
M'rr'r'ndi	b	62	40	0
Mus'lbr'k	b	68	41	0
Narrabri	b	73	42	0
Newcastle	b	70	53	0
Nowra	–	—	—	–
Orange	n	54	34	0
Picton	n	66	37	0
P. M'q'rie	b	71	51	0·63
P. St'ph'n	b	78	56	0
Q'nbeyan	n	57	35	0
Quirindi	b	77	35	0
Singleton	b	60	46	0
SYDNEY	b	66	51	0
Tamw'rth	–	—	—	–
Taralga	b	71	30	0
Taree	b	74	52	0
T'nt'rfield	b	68	35	0
Wagga	b	65	32	0
Walcha	b	59	31	0
Walgett	b	63	41	0
W'ntw'rth	b	72	40	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	74	40	0
Young	n	70	33	0

[illegible] Fine, wind N [illegible]
T. storm [illegible] Rain, wind S. [illegible] wind W
[illegible] it is calm. The symbol is used without the arrow
Smooth sea.
Heavy sea.
Very heavy sea.



TIME BALL,
Dropsat 1 p.m. S.M.T.
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 25' 37" E

Barometers on East Coast risen about [illegible]

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; C B, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; G, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; C, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Perth, fine, with light S.E. wind, fallen barometer, and smooth sea; Esperance Bay, fine, with W. wind, and temperature 55°.

South Australia. Generally fine but cloudy, with light variable winds and high barometers on and near the coast; fine, with light E. and S.E. winds inland; very cold north of Peake, sea smooth; rainfall at M'Donnell Bay, 0·03. Extremes of barometers and temperature: Alice Springs 30·48, Port Darwin 29·95 and 77°, and M'Donnell Bay 55°.

New South Wales.—Generally fine, cold, and calm, with high barometers; very high in western parts, and smooth sea; heavy frosts reported from stations on the mountains. In the coast districts north of Sydney light rain has fallen at a few stations. Extremes of barometers and temperature at 9 a.m.: Wentworth 30·50, Wagga 30·22, Clarence 65°, and Cooma 35°. Extra stations: Bundarra, max. 75°, min. 45°, calm and fine; Mossgiel [illegible] 65°, min. 37°, calm and fine. (For further particulars [illegible])

3 P.M. OBSERVATIONS.

New South Wales.—Sydney, E., 10, very fine and clear, temperature 60°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 8 inches above summer level; at Hay, below summer level; at Balranald, very low. Murray: At Albury, 1 inch above summer level; Euston, low. Darling: At Wentworth, 9 inches above summer level; at Pooncarie, 1 foot 11 inches above summer level; at Menindie, Wilcannia, Bourke, and Walgett, low.

ASTRONOMICAL MEMORANDA FOR APRIL 27.

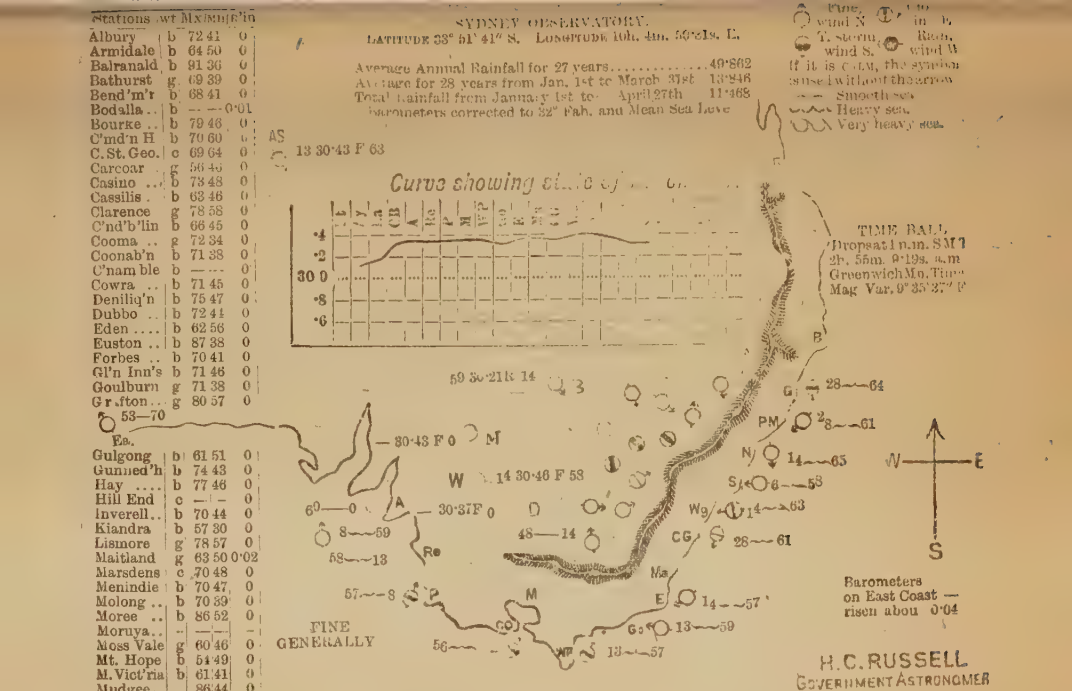
Sun rises at 6.33, sets at 5.22; Moon, 12.3 a.m., 1.19 p.m.; Mercury, [illegible] 0 a.m., 4.25 p.m.; Venus, 2.53 a.m., 3.19 p.m.; Mars, 2.44 p.m., 1.[illegible] a.m.; Jupiter, 3.36 p.m., 3.25 a.m.; Saturn, 11.2 a.m., 8.[illegible] p.m. New moon, 5th; full moon, 19th.
High water at Fort Denison, April 27: 1.59 a.m., 2.27 p.m.

Stations	wt	M'x	m'm	R'in
Albury	b	72	41	0
Armidale	b	64	50	0
Balranald	b	91	36	0
Bathurst	g	69	39	0
Bend'm'r	b	68	41	0
Bodalla ..	b	—	—	0·01
Bourke ..	b	79	46	0
C'md'n H	b	70	60	0
C. St. Geo.	c	69	64	0
Carcoar ..	g	56	40	0
Casino ..	b	73	48	0
Cassilis ..	b	63	46	0
Clarence	g	78	58	0
C'nd'b'lin	b	66	45	0
Cooma ..	g	72	34	0
Coonab'n	b	71	38	0
C'nam ble	b	—	—	0
Cowra ..	b	71	45	0
Deniliq'n	b	75	47	0
Dubbo ..	b	72	44	0
Eden	b	62	56	0
Euston ..	b	87	38	0
Forbes ..	b	70	41	0
Gl'n Inn's	b	71	46	0
Goulburn	g	71	38	0
Grafton ..	g	80	57	0
Eu.				
Gulgong	b	61	51	0
Gunned'h	b	74	43	0
Hay	b	77	46	0
Hill End	c	—	—	0
Inverell ..	b	70	44	0
Kiandra	b	57	30	0
Lismore	g	78	57	0
Maitland	g	63	50	0·02
Marsdens	c	70	48	0
Menindie	b	70	47	0
Molong ..	b	70	39	0
Moree ..	b	86	52	0
Moruya ..	—	—	—	—
Moss Vale	g	60	46	0
Mt. Hope	b	54	49	0
M. Vict'ria	b	61	41	0
Mudgee ..		86	44	0
M'rr'm'bh	c	76	51	0
M'rr'ndi	b	64	46	0
Mus'br'k	b	70	47	0
Narrabri	b	74	41	0
Newcastle	b	68	59	0·09
Nowra ..	—	—	—	—
Orange ..	c	58	39	0
Picton ..	c	68	39	0
P. M'q'rie	b	70	53	0·01
P. St'ph'n	b	79	55	0·08
Q'nbeyan	b	60	40	0
Quirindi	b	81	42	0
Singleton	b	70	51	0
Sydney ..	b	69	55	0
Tamw'rth	b	74	45	0
Taralga ..	g	73	40	0
Taree	b	72	57	0·06
T'nt'rfield	b	68	44	0
Wagga ..	b	70	42	0
Walcha ..	b	62	41	0
Walgett ..	b	62	46	0
W'ntw'rth	b	75	44	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	74	52	0
Young ..	g	85	36	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 59·61s. E.

Average Annual Rainfall for 27 years..... 49·862
Average for 28 years from Jan. 1st to March 31st 13·946
Total rainfall from January 1st to April 27th 11·468
Barometers corrected to 32° Fah. and Mean Sea Level

Fine, wind N. ... in ...
T. storm, ... Rain, wind S. ... wind W.
If it is CALM, the symbol is used without the arrow
Smooth sea
Heavy sea.
Very heavy sea.



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b signifying for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:— Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle, P M, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the 26th, generally fine, with light east winds in North, and calm and cloudy at Albany. 27th: At Esperance Bay cloudy, with light west wind; barometer at 30·08, and temperature 57°.

South Australia.—Generally fine, with light north winds on south coast; S.E. and E. winds inland and in Northern Territory; sea moderate, and no rain fallen. Extremes of barometers and temperature: 30·43 at Alice Springs; Port Darwin, 29·95 and 28°; and M'Donnell Bay, 55°.

Victoria.—Generally cloudy, with fresh N.E. and N. winds; misty along the coast. Rainfall: Portland, 0·06; Robe, 0·04; and Hamilton, 0·04; all west of Melbourne. Sea smooth. Extremes of barometers and temperature: Lakes Entrance, 30·40 and 55°; Hamilton, 30·28; and 69° at Echuca.

Tasmania.—Generally fine, with light variable winds, high barometer, and rough sea on east coast; haze, heavy dew, and hoar frost on coast. Extremes of barometers and temperature: 30·45 and 53° at Falmouth, and 30·38 and 46° at Southport.

New Zealand.—Generally fine on North Island, with variable winds; passing showers from N.W. at Bluff on Middle Island; barometers generally 30·1.

New South Wales.—Generally fine and cool; on coast light W. and S. winds, slightly risen barometers, and smooth sea; inland light E. and S. winds and calm, and almost steady barometers; cloudy in places north and south of Sydney, and near mountains west of Sydney. Light rain fallen on coast north of Sydney. Extremes of barometers and temperature at 9 a.m.: Wentworth 30·46. Inverell 30·19, Newcastle 65°, and Goulburn 47°. Extra stations: Bundarra, max. 79°, min. 45°, fine and warm; Morangarell, max. 67°, min. 43°, cloudy. (For further particulars see map.)

3 P.M. OBSERVATIONS.

New South Wales.—Cape St. George, S.S.E., 14, dull, smooth sea, temperature 60°; Dubbo, W., fine, temperature 66°: Eden, E.S.E., 28, fine, light sea, temperature 64°; Goulburn, E., fine, temperature 60°; Newcastle, E.S.E., 14, fine, smooth sea, temperature 67°; Port Macquarie, S., 28, unsettled, smooth sea, temperature 74°; Sydney, S., 18, fine but cloudy, smooth sea, temperature 65°.

STATE OF RIVERS.

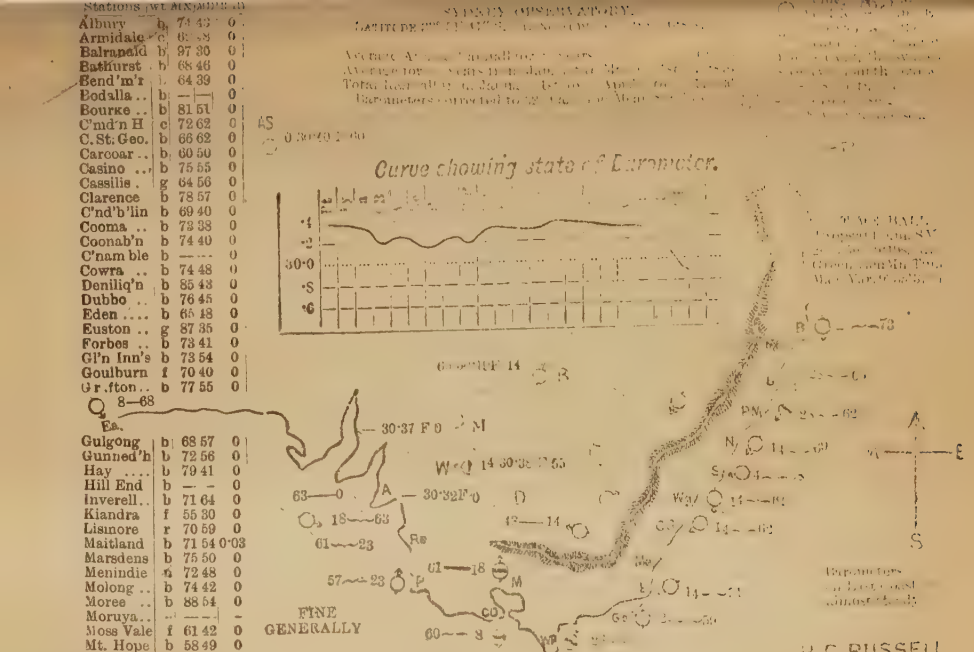
Murrumbidgee: At Wagga, 8 inches above summer level; at Hay, below summer level; at Balranald, very low. Murray: At Albury, below summer level; Euston, low. Darling: At Wentworth, 9 inches above summer level; at Pooncarie, 1 foot 9 inches above summer level; at Menindie, Wilcannia, Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 28.

Sun rises at 6.34, sets at 5.21; Moon, 12.36 a.m., 1.56 p.m.; Mercury, 4.36 a.m., 4.22 p.m.; Venus, 2.53 a.m., 3.17 p.m.; Mars, 2.40 p.m., 1.44 a.m.; Jupiter, 3.31 p.m., 3.21 a.m.; Saturn, 10.38 a.m., 8.53 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison: 3.0 a.m., 3.32 p.m.

Stations	W.	Alt.	Max.	Min.	Rain
Albury	b	74	43		0
Armidale	c	63	48		0
Balranald	b	97	30		0
Bathurst	b	68	46		0
Bend'm'r		64	39		0
Bodalla ..	b	—	—		
Bourke ..	b	81	51		0
C'md'n H	c	72	62		0
C. St. Geo.	b	66	62		0
Carcoar ..	b	60	50		0
Casino ..	b	75	55		0
Cassilis .	g	64	56		0
Clarence	b	78	57		0
C'nd'b'lin	b	69	40		0
Cooma ..	b	73	38		0
Coonab'n	b	74	40		0
C'nam ble	b	—	—		0
Cowra ..	b	74	48		0
Deniliq'n	b	85	43		0
Dubbo ..	b	76	45		0
Eden	b	66	48		0
Euston ..	g	87	35		0
Forbes ..	b	73	41		0
Gl'n Inn's	b	73	54		0
Goulburn	f	70	40		0
Gr.fton..	b	77	55		0
Gulgong	b	68	57		0
Gunned'h	b	72	56		0
Hay	b	79	41		0
Hill End	b	—	—		0
Inverell..	b	71	64		0
Kiandra	f	55	30		0
Lismore	r	70	59		0
Maitland	b	71	54		0·03
Marsdens	b	75	50		0
Menindie	s	72	48		0
Molong ..	b	74	42		0
Moree ..	b	88	54		0
Moruya..		—	—		—
Moss Vale	f	61	42		0
Mt. Hope	b	58	49		0
M. Vict'ria	g,	59	45		0·13
Mudgee..	b,	81	44		0
M'rr'm'bh	b	75	45		0
M'rr'r'ndi	b	64	56		0
Mus'br'k	b	72	51		0
Narrabri	b	74	43		0
Newcastle	b	75	62		0
Nowra ..	b	67	45		0
Orange ..	b	59	42		0
Picton ..	b	70	37		0
P. M'q'rie	g	73	56		0·24
P. St'ph'n	r	78	56		0·15
Q'nbeyan	b	64	46		
Quirindi	b	81	50		
Singleton	b	70	52		
Sydney ..	b	69	56		0·37
Tamw'rth	b	74	43		
Taralga ..	b	71	45		
Taree	b	78	57		0·18
T'nt'rfield	b	66	41		
Wagga ..	b	72	44		
Walcha ..	b	62	50		
Walgett..	b	74	53		
W'ntw'rth	g	78	45		
Wilcannia	b	—	—		
W'll'ng'ng	b	74	54		0·02
Young ..	b	89	44		



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each constellation the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—P, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W.P. Wilson's Promontory; Go, Gabo; E, Eden; Mo, Moruya; C G Jervis Bay, Wp Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depression, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On east coast fine, with light east winds in north, and south wind and calm in south, and moderate sea; on south coast gloomy and threatening, with light west winds and calm, and smooth sea. No rain reported. Extremes of barometers and temperature: 30·37 and 30° at Perth, 29·98 at Cossack, and 78° at Carnarvon.

South Australia.—Generally fine, on coast light northerly winds, inland calm, and in Northern Territory E. and S.E. winds; sea smooth generally, moderate off Cape Borda. Extremes of barometers and temperature: Alice Springs, 30·40; Port Darwin, 29·93 and 29·; and M'Donnell Bay, 51°. No rain.

Victoria.—Generally fine, but cloudy and cold, with heavy dew in morning, winds fresh from north, and moderate sea. No rain fallen. Extremes of barometers and temperature: Horsham, 30·26 and 60°; Hamilton, 30·11; and Omeo, 44°.

Tasmania.—Generally fine, but cloudy, with fresh northerly winds; sea moderate on east coast, rough on N.W. coast. Rainfall: 0·21 at Hobart. Extremes of barometers and temperature: 30·24 at Falmouth, 30·14 at Southport, 60° on north coast, and 49° at Hobart.

New Zealand.—Generally fine, with south-easterly winds on North Island, and W. wind in extreme south of Middle Island: cloudy at Wellington; barometers generally, 30·1.

New South Wales.—Generally fine and cool, with light S. and W. winds, high and almost steady barometers, and smooth sea. Light rain has fallen in coast districts between Wollongong and Port Macquarie, heaviest at Sydney. The direction of the wind at the time the rain fell in Sydney was south, and the rain was confined to the coast direct N. and S of Sydney. At 9 a.m. this morning it was still raining at Port Stephens, with west wind. Extremes of barometers and temperature at 9 a.m.: Wentworth and Wollongong 30·38, Inverell 30·04, Newcastle 69°, and Goulburn 44°. Extra Stations: Bundarra, max. 74°, min. 46°, calm, clear, and warm; Morangarell: Max. 80°, min. 43°, light, fine, and clear; Warrah: Max. 72°, min. 51°, fine. (For further particulars see map.)

Queensland.—Generally fine, with S. and S.E. winds; rather strong, and squally in North, and moderate seas, at Cape Moreton the sea is rough. Rainfall at Cooktown, 0·10. Extremes of barometers and temperature: Brisbane 30·25, Townsville 29·95, 89° at Cooktown, and 69° at Cape Moreton.

3 P.M. OBSERVATIONS.

Victoria.—Barometers falling. Melbourne, N., 12, cloudy, temperature 68°; Cape Otway, N.N.W., 6, cloudy, smooth sea, temperature 70°; Portland, W.N.W., 36, showery, smooth sea, temperature 62°; Wilson's Promontory, N.N.W., 12, squalls from N.W., smooth sea, temperature 66°.

New South Wales.—Cape St. George, S., 14, fine, smooth sea, temperature 68°; Deniliquin, calm, fine, clear, temperature 62°; Dubbo, E., 8, fine, temperature 69°; Eden, N.E., 14, fine, light sea, temperature 63°; Goulburn, calm, fine, temperature 60°; Menindie, calm, clear, temperature 67°; Newcastle, S., 14, fine, smooth sea, temperature 73°; Sydney, E., 8, fine and clear, smooth sea, temperature 66°; Wentworth, W., 20, fine, temperature 64°; Walgett, S.E., fine, temperature 74°.

STATE OF RIVERS.

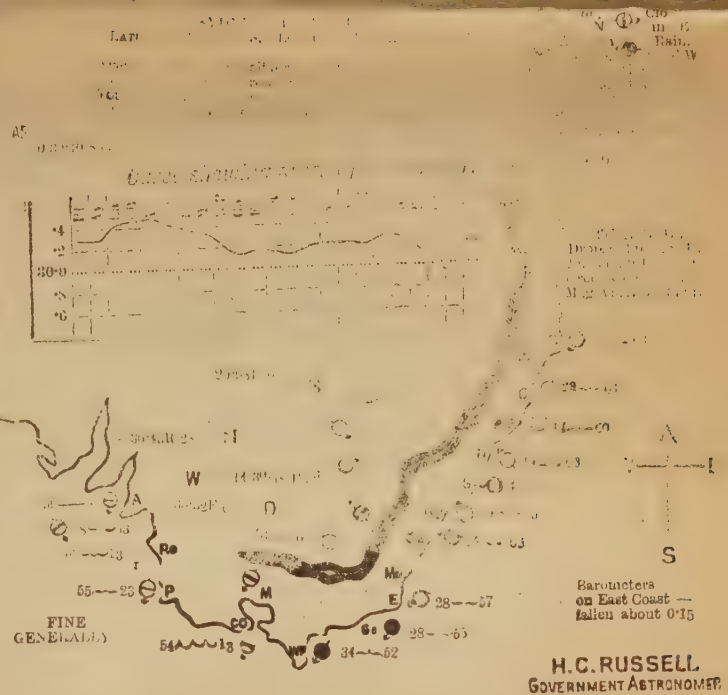
Murrumbidgee: At Hay, below summer level; at Balranald low. Murray: At Albury, 11 inches below summer level; at Euston, low. Darling: At Wentworth, 8 inches above summer level; at Pooncarie, 1 foot 5 inches above summer level; at Menindie, Wilcannia, Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 29.

Sun rises at 6.34, sets at 5.20; Moon, 1.49 a.m., 2.31 p.m.; Mercury, 4.35 a.m., 4.20 p.m.; Venus, 2.54 a.m., 3.16 p.m.; Mars, 2.37 p.m., 1.41 a.m.; Jupiter, 3.27 p.m., 3.17 a.m.; Saturn, 10.53 a.m., 8.48 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison: 4.5 a.m., 4.38 p.m.

Stations	wt	Mx	mn	Rin
Albury	b	74	42	0
Armidale	b	64	40	0
Balranald	b	88	39	0
Bathurst	b	70	36	0
Bend'm'r	b	62	34	0
Bodalla ..	b	—	—	0
Bourke ..	b	84	48	0
C'md'n H	b	71	53	0
C. St. Geo.	b	71	52	0
Carcoar ..	b	60	46	0
Casino ..	b	77	52	0
Cassilis .	b	65	45	0
Clarence	b	79	50	0·01
C'nd'b'lin	b	71	35	0
Cooma ..	c	72	7	0
Coonab'n	b	72	36	0
C'nam ble	b	—	—	0
Cowra ..	n	70	46	0
Deniliq'n	b	79	53	0
Dubbo ..	b	76	44	0
Eden	b	68	50	0
Euston ..	b	89	4	0
Forbes ..	b	73	45	0
Gl'n Inn's	b	68	38	0
Goulburn	b	77	39	0
Grafton ..	g	75	58	0
Ea				
Gulgong	b	69	59	0
Gunned'h	b	71	52	0
Hay	b	81	45	0
Hill End	b	—	—	0
Inverell..	b	71	43	0
Kiandra	b	58	35	0
Lismore	r	71	57	0·10
Maitland	b	63	47	0
Marsdens	b	77	70	0
Menindie	b	75	53	0
Molong ..	b	71	45	0
Moree ..	b	86	52	0
Moruya..	–	—	—	–
Moss Vale	–	—	—	–
Mt. Hope	b	60	51	0
M. Vict'ria	b	60	42	0
Mudgee..	b	82	46	0
M'rr'mb'sh	b	80	44	0
M'rr'ndi	b	65	44	0
Mus'b'r'k	b	72	40	0
Narrabri	b	75	43	0
Newcastle	b	77	52	0
Nowra ..	–	—	—	–
Orange ..	b	58	51	0
Picton ..	b	70	38	0
P. M'q'rie	b	71	52	0
P. St'ph'n	b	80	62	0
Q'nbeyan	c	61	44	0
Quirindi	b	84	40	0
Singleton	b	80	49	0
Sydney ..	h	67	53	0
Tamw'rth	b	71	42	0
Taralga ..	b	73	40	0
Taree	b	74	53	0·01
T'nt'rfield	b	66	40	0
Wagga ..	b	72	41	0
Walcha ..	b	62	35	0
Walgett ..	b	76	53	0
W'ntw'rth	b	81	39	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	74	52	0
Young ..	b	88	40	0



H.C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light E. and N. winds; fallen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: 30·39 and 30° at Esperance Bay, 30·01 at Cossack, and 74° at Carnarvon.

South Australia.—Generally fine, but cloudy on coast, with light southerly winds, and moderate sea; fine with S.E. and E. winds inland and in Northern Territory. No rain reported. Extremes of barometers and temperature: 30·40 at Alice Springs, 29·10 and 79° at Port Darwin, and 53° degrees at Cape Borda. Along the south coast it is generally cold, with high barometers.

Victoria.—Generally cloudy and gloomy, with cold squally southerly winds, and moderate and rough sea. Rainfall: Portland 0·04; Cape Otway, 0·14; Wilson's Promontory, 0·11, and still showery at 9 a.m.; Lakes Entrance, 0·03; and Cape Schanck, 0·09, and still raining lightly at 9 a.m. Extremes of barometers and temperature: 30·36 at Portland, 30·26 at Lakes Entrance, and 55°; Omeo 45°.

Tasmania.—Generally fine in north, with fresh westerly winds; heavy showers in south from N.E., and moderate sea. Rainfall with extremes of barometers and temperature: Southport 0·60, 48° and 30·08; Circular Head, 0·05, 52° and 30·20; Low Heads, rain 0·07; Launceston, 0·20; and Hobart, 0·03.

New Zealand.—Fine on North Island, with southerly winds. Passing showers from west at extreme south of Middle Island, and heavy rain on east coast. Extremes of barometer: 30·0 in South, and 29·60 at Wellington.

New South Wales.—Generally fine and cold, with light southerly winds, fallen barometer, and moderate sea. Light rain fallen in Clarence district, and at 9 a.m. it was still raining at Lismore. On the Victoria border, Gabo Island reports passing showers from south-west; rainfall, 0.04. Extremes of barometers and temperature at 9 a.m.: Wentworth 30·48, 29·98 at Bourke, Clarence 64°, and 47° at Cooma. Extra Stations: Bundarra, max. 75°, min. 39°, calm, fine, and clear; Morangarell: Max. 81°, min. 42°, fine and clear; Warrah: Max. 73°, min. 41°, fine and clear. (For further particulars see map.)

Queensland.—Generally fine, with E. and S. winds, moderate sea south, and rough in north. Passing showers at Cape Moreton and Cooktown, and rainfall 0·40 and 0·58 respectively. Extremes of barometers and temperature: Brisbane 30·23 and 66°, Townsville 29·75, and Cooktown 89°.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, S., 23, fine and misty, rough sea, temperature 59°; Melbourne, S., 13, fine but cloudy, temperature 56°; Cape Otway, S., 13, fine and misty, rough sea, temperature 55°; Lakes Entrance, W., 23, fine but cloudy, moderate sea, temperature 59°; Portland, S., 23, fine, smooth sea, temperature 58°; Wilson's Promontory, S.W., 34, cloudy and squally, rough sea, temperature 55°.

New South Wales.—Cape St. George, S.S.E., 28, cloudy, smooth sea, temperature 63°; Clarence River, S.S.E., 14, dull, moderate sea, temperature 73°; Deniliquin, calm, fine, temperature 68°; Dubbo, E., fine, temperature 69°; Eden, S.W., 28, fine, light E. sea, temperature 60°; Goulburn, N., 14, fine, temperature 61°; Menindie, S.W., 28, fine and clear, temperature 64°; Moruya, S., 28, cloudy, smooth sea, temperature 63°; Newcastle, S.W., 14, fine, smooth sea, temperature 74°; Port Macquarie, S.E., 14, fine, smooth sea, temperature 75°; Sydney, S., 14, gloomy, smooth sea, temperature 67°; Wentworth, S., fine, temperature 50°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 8 inches above summer level; at Hay, below summer level; at Balranald, 3 feet below summer level. Murray: At Albury, 11 inches below summer level; at Euston, low. Darling: At Wentworth, 8 inches above summer level; at Pooncarie, 1 foot 2 inches above summer level; at Menindie, Wilcannia, Bourke, low.

ASTRONOMICAL MEMORANDA FOR APRIL 30.

Sun rises at 6.35, sets at 5.19; Moon, 2.43 a.m., 3.5 p.m.; Mercury, 4.34 a.m., 4.18 p.m.; Venus, 2.55 a.m., 3.15 p.m.; Mars, 2.34 p.m., 1.38 a.m.; Jupiter, 3.23 p.m., 3.13 a.m.; Saturn, 10.54 a.m., 8.46 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison: 5.9 a.m., 5.39 p.m.

Stations	W.T.	Max.	Min.	Rain
Albury	b	73	35	0
Armidale	b	69	40	0
Balranald	b	74	27	0
Bathurst	b	68	38	0
Bend'm'r	b	65	35	0
Boualla..	b	—	—	0
Bourke ..	b	85	49	0
C'md'n H	u	73	53	0
C.St.Geo.	b	66	61	0
Carcoar ..	b	59	46	0
Casino ..	b	79	55	0
Cassilis .	c	67	49	0
Clarence	c	82	58	0
C'nd'b'lin	b	72	35	0
Cooma ..	n	60	24	0
Coonab'n	b	73	37	0
C'nam ble	b	—	—	0
Cowra ..	b	74	45	0
Deniliq'n	b	85	37	0
Dubbo ..	h	76	44	0
Eden	b	64	50	0
Euston ..	b	72	28	0
Forbes ..	b	69	41	0
Gl'n Inn's	b	74	41	0
Goulburn	g	70	41	0
Grafton ..	b	85	54	0
Gulgong	b	70	58	0
Gunned'h	-	—	—	-
Hay	b	69	35	0
Hill End	b	—	—	0
Inverell..	b	70	45	0
Kiandra	n	60	22	0
Lismore	b	80	60	0
Maitland	b	71	50	0
Marsdens	n	70	46	0
Menindie	b	61	45	0
Molong ..	b	69	41	0
Moree ..	b	87	52	0
Moruya..	b	—	45	0
Moss Vale	-	—	—	-
Mt. Hope	b	52	46	0
M.Vict'ria	c	63	44	0
Mudgee..	c	81	44	0
M'rr'm'bh	b	81	43	0
M'rr'r'ndi	b	65	45	0
Mus'lbr'k	b	72	50	0
Narrabri	b	75	42	0
Newcastle	b	77	59	0
Nowra ..	c	67	50	0
Orange ..	b	60	39	0
Picton ..	b	72	41	0
P. M'q'rie	g	72	53	0·08
P. St'ph'n	r	70	55	0·08
Q'nbeyan	b	65	46	0
Quirindi	b	83	43	0
Singleton	b	62	52	0
Sydney ..	h	72	56	0·12
Tamw'rth	b	73	45	0
Taralga ..	b	76	40	0
Taree	b	76	57	0
T'nt'rfield	b	73	44	0
Wagga ..	b	72	38	0
Walcha ..	g	63	34	0
Walgett..	b	74	50	0
W'ntw'rth	b	66	39	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	76	54	0
Young ..	b	91	41	0

SYDNEY OBSERVATORY.

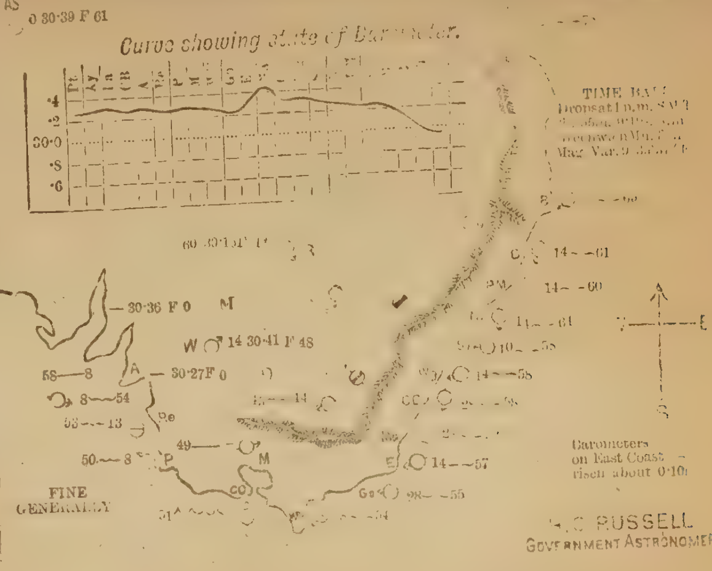
LATITUDE 33° 51' 41" S. LONGITUDE

Average Annual Rainfall for years

Average for 28 years from Jan. 1st

Total Rainfall from January 1st to

Barometers corrected to 32°



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky, c, detached clouds, d, drizzling rain, f, fog, g, gloomy; h, hazy; [illegible] n, frosty; o, overcast; p, passing showers; r, rain; s, snow, t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature [illegible] the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light N. and E. winds; fallen barometers, and smooth sea. Gloomy at Albany, but no rain fallen. Extremes of barometers and temperature: 30·26 and 51° at Esperance Bay, 29·98 at Cossack, and 77° at Carnarvon.

South Australia.—Generally fine, with light E. and N. winds on coast, E. and S.E. winds inland and in Northern Territory. Sea moderately smooth, and no rain reported. Extremes of barometers and temperature: 30·29 at Adelaide, 29·87 at Port Darwin and 82°; M'Donnell Bay, 46°.

Victoria.—Generally fine and very cold, with light N. and W. winds. Sea rough on S.W., and moderate on S.E. coast. Melbourne reports heavy dew and hoar frosts in morning, and maximum temperature during last 24 hours, 60°; minimum, 38°. Hoar frosts are also reported from Ballarat and Hamilton. Rainfall: Wilson's Promontory and Lakes Entrance, 0·01 each. Extremes of barometers and temperature: 30·30 at Cape Otway, 30·23 at Wilson's Promontory; Cape Schanck, 57° and foggy; Omeo, 44°.

Tasmania.—Generally fine, with fresh westerly winds, and moderate sea. Rainfall: Southport 0·05. Extremes of barometers and temperature: 30·22 and 53° at Low Heads, 30·13 at Southport; Falmouth, 57°.

New Zealand.—On North Island fine, with N.W. winds; at extreme south of Middle Island showery from east. Barometer: In North, 29·9; in South, 29·5.

Queensland.—Generally cloudy, with S. and S.E. winds and moderate sea south, rough in north. Rainfall: Brisbane, 0·09; Cape Moreton, 0·76; Cooktown, 0·33. Extremes of barometers and temperature: 30·25 and 65° at Brisbane, 29·83 at Townsville, and 89° at Cooktown.

New South Wales.—Generally fine and cold, with heavy frost on Mountains, light southerly winds and calms, and moderately smooth sea; barometers still continue high, and almost steady inland. Light rain fallen between Sydney and Port Macquarie; heaviest at Sydney. Gabo Island, with 20 points, is the only station in south where rain has fallen. Extremes of barometer and temperature at 9 a.m.: Wentworth 30·41, Wagga 30·10, Lismore 65°, and Cooma 31°. Extra Stations: Bundarra, max. 74°, min. 41°, calm, fine, and clear; Morangarell: Max. 79°, min. 39°, fine and clear; Warrah: Max. 73°, min. 49°, fine (For further particulars see map.)

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, E., 13, fine but misty, smooth sea, temperature 59°; Melbourne, S.S.W., 13, fine, temperature 58°; Cape Otway, S.E., 8, fine but cloudy, but hazy, rough sea, temperature 62°; Lakes Entrance, S., 18, fine, moderate sea, temperature 58°; Portland, N.W., 13, cloudy, smooth sea, temperature 59°; Wilson's Promontory, N.E., 8, fine but cloudy, smooth sea, temperature 59°.

New South Wales.—Cape St. George, S.S.W., 14, fine, smooth sea, temperature 64°; Clarence River, S., 28, dull, moderate sea, temperature 70°; Deniliquin, calm, fine, temperature 61°; Eden, N.E., 14, fine and light, E. sea, temperature 61°; Goulburn, calm, fine, temperature 61°; Moruya, E., 14, fine, smooth sea, temperature 62°; Newcastle, E., 14, fine, smooth sea, temperature [illegible]; Port Macquarie, S., 14, cloudy, smooth sea, temperature 72°; Sydney, E., 5, fine but hazy, smooth sea, temperature 63°; Wentworth, N.W., 14, fine and clear, temperature 64°.

STATE OF RIVERS.

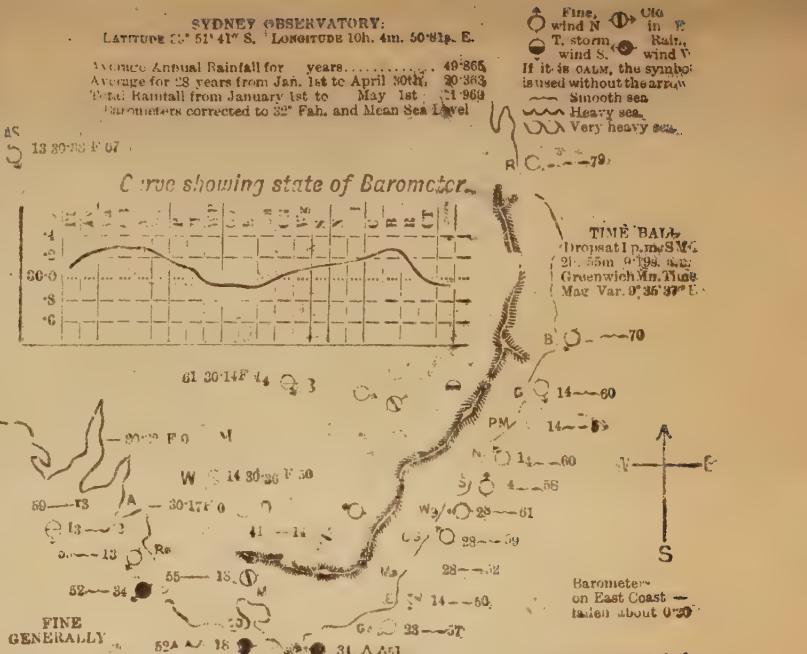
Murrumbidgee: At Wagga, 8 inches above summer level; at Hay, below summer level. Murray: At Albury, 9 inches above summer level; at Euston, low. Darling: At Wentworth, 8 inches above summer level; Pooncarie, Menindie, Wilcannia, Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 1.

Sun rises at 6.36, sets at 5.18; Moon, 3.38 a.m., 3.39 p.m.; Mercury, 4.32 a.m., 4.16 p.m.; Venus, 2.56 a.m., 3.14 p.m.; Mars, 2.30 p.m., 1.34 a.m.; Jupiter, 3.20 p.m., 3.8 a.m.; Saturn, 10.51 a.m., 8.43 p.m. New moon, 5th; full moon, 19th.

High water at Fort Denison: 6.5 a.m., 6.31 p.m.

Stations	wt	Mx	Mn	Rain
Albury	c	72	35	0
Armidale	b	67	43	0
Balranald	b	82	34	0
Bathurst	b	70	36	0
Bend'm'r	b	65	40	0
Bodalla ..	g	—	—	0
Bourke ..	b	89	49	0
C'md'n H	b	73	54	0
C. St. Geo.	b	65	53	0
Carcoar ..	b	79	46	0
Casino ..	b	74	50	0
Cassilis ..	b	83	46	0
Clarence	b	71	57	0·13
C'rd'b'lin	b	73	43	0
Cooma ..	n	65	30	0
Coonab'n	b	75	37	0
C'namble	b	—	—	—
Cowra ..	b	75	48	0
Deniliq'n	b	75	34	0
Dubbo ..	b	71	41	0
Eden	b	63	48	0
Euston ..	g	76	29	0
Forbes ..	b	75	44	0
Gl'n Inn's	f	55	47	0
Goulburn	b	68	40	0
Grafton ..	n	79	53	0
Gulgong	b	70	59	0
Gunned'h	c	72	51	0
Hay	b	70	35	0
Hill End	b	—	—	—
Inverell ..	c	71	46	0
Kiandra	n	55	32	0
Lismore	—	—	—	—
Maitland	b	70	45	0
Marsdens	b	76	45	0
Menindie	b	67	44	0
Molong ..	b	72	40	0
Moree ..	b	86	55	0
Moruya ..	g	67	46	0
Moss Vale	—	—	—	—
Mt. Hope	b	65	49	0
M. Vict'ria	b	59	43	0
Mudgee ..	b	79	36	0
M'rr'm'bh	b	80	41	0
M'rr'r'ndi	b	63	46	0
Mus'br'k	b	72	40	0
Narrabri	g	75	39	0
Newcastle	b	70	53	0
Nowra ..	h	67	43	0
Orange ..	b	58	36	0
Picton ..	b	68	40	0
P. M'q'rie	b	—	—	—
P. St'ph'n	b	69	51	0
Q'nbeyan	b	79	57	0
Quirindi	b	80	45	0
Singleton	b	90	43	0
SYDNEY ..	h	66	52	0
Tamw'rth	—	—	—	—
Taralga ..	h	73	32	0
Taree ..	b	72	52	0
T'nt'rfield	c	69	46	0
Wagga ..	b	72	35	0
Walcha ..	b	61	38	0
Walgett ..	b	74	50	0
W'ntw'rth	g	70	38	0
Wilcannia	b	—	—	0
Wil'ng'ng	b	71	54	0
Young ..	b	85	37	0



NOTES EXPLANATORY OF MAP.

In the Meteor stations the column headed W.T. gives the state of the weather at 9 a.m., b stations for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; E, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; L, Luen; Mo, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; Sk, Stockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Spring. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds precede them, and southerly following.

Western Australia.—Generally fine, with light variable winds and smooth sea. Extremes of barometers and temperature: 30·22 and 76° at Geraldton, 30·19 and 55° at Perth. Cloudy, with west wind, at Esperance Bay. No rain fallen.

South Australia.—Partially clouded south of Eyre, gloomy and threatening along coast, with light southerly winds, and moderate sea. Fine inland and in Northern Territory with light E. and S.E. winds. Rainfall: Streaky Bay, 0·02; Wallaroo, 0·03; Adelaide, 0·04; M'Donnell Bay 0·08; Cape Borda, 0·17; Robe, 0·08. Extremes of barometer and temperature: 30·38 at Alice Springs, 29·87 and 84° at Port Darwin and 57° at Cape Borda.

Victoria.—Generally showery, cloudy, and gloomy, with strong, squally westerly winds, and rough sea. Rainfall: Portland, 0·13; Cape Otway, 0·04; Hamilton, 0·05. Extremes of barometers and temperature: Hamilton, 30·14 and 49°; Wilson's Promontory, 29·83; and Melbourne, 57°.

Tasmania.—Generally cloudy, gloomy, and threatening, with fresh N. and W. winds fallen barometers and moderate sea. Heavy showers at Falmouth. Rainfall: Circular Head, 0·26; Hobart, 0·05. Extremes of barometers and temperature: 29·82 at Low Heads, 29·69 and 57° at Falmouth, and 47° at Southport.

New Zealand.—Fine with strong squally N.W. winds on North Island, showery from S.E. at extreme south of Middle Island. Barometers: 29·9 in north, and 29·40 in south.

New South Wales.—Generally fine and cold, with heavy frosts on mountains, and cloudy in places in northern parts of country. Winds light and variable, and sea smooth. Light rain fallen at mouths of Clarence and Manning rivers. Extremes of barometers and temperature at 9 a.m.: Wentworth 30·36, Eden 29·92, Bourke 61°, and [illegible]. Extra Stations: Bundarra, max. 75°, min. 40°, calm, threatening, and cold; Morangarell, max. 79°, min. 39°, calm and fine; Warrah, max. 74°, min. 40°, calm and fine and warm. (For further particulars see map.)

Queensland.—Generally fine, with light S. and S.E. winds, fallen barometers, and moderate sea. Rainfall: Cooktown, 0·04, and strong S.E. wind; Brisbane, 0·08; and Cape Moreton, 0·33. Extremes of barometers and temperature: Brisbane, 30·27 Townsville 29·83. Cooktown 89° and Cape Moreton 69°.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, W., 18, squally, with rain, rough sea, temperature 51°; Portland, S.W., 36, cloudy, smooth sea, temperature 56°; Wilson's Promontory, W., 42, fine, rough sea, temperature 55°.

New South Wales.—Cape St. George, W., 40, fine, smooth sea, temperature 70°. Clarence River, N.E., 10, fine, smooth sea, temperature 74°. Deniliquin, S., fine temperature 64°; Dubbo, W.S.W., 14, fine, temperature 67°; Eden, E., 14, fine smooth sea, temperature 64°; Goulburn, N.W., 10, fine, temperature 61°; Menindie, S.W., 14, fine, temperature 61°; Moruya, calm, fine, smooth sea, temperature 70°; Newcastle, N.W., 20, fine, smooth sea, temperature 75°; Port Macquarie, N.N.E., 28, fine, smooth sea, temperature 78°; Sydney, W., 20, fine, smooth sea, temperature 75°; Wentworth, S., 14, cloudy, temperature 58°; Walgett, S.W., 0, fine, warm, temperature 77°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 8 inches above summer level; at Hay, below summer level; at Balranald, 3 feet below summer level. Murray: At Albury, 8 inches above summer level; at Euston, low. Darling: At Wentworth, 6 inches above summer level; at Pooncarie, 3 feet 2 inches above summer level; at Menindie, Wilcannia, and Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 3.

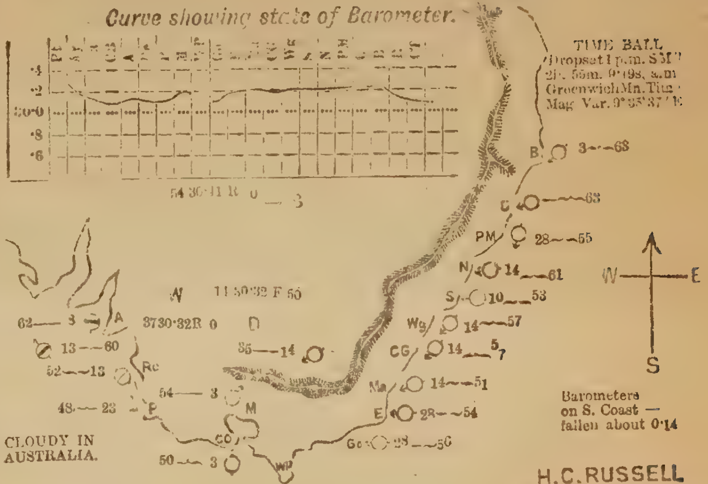
Sun rises at 6.37, sets at 5.16; Moon, 5.32 a.m., 4.48 p.m.; Mercury, 4.32 a.m., 4.14 p.m.; Venus, 2.57 a.m., 3.12 p.m.; Mars, 2.22 p.m., 1.28 a.m.; Jupiter, 3.12 p.m., 3.0 a.m.; Saturn, 10.44 a.m., 8.36 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison: 7.36 a.m., 7.56 p.m.

Stations	W.T.	Mx.	Mn.	R'n
Albury	n	63	32	0
Armidale	b	71	31	0
Balranald	b	82	52	0
Bathurst	b	67	27	0
Bend'm'r	n	61	31	0
Bodalla	b	–	–	0
Bourke	b	59	45	0
C'md'n H	b	–	–	0
C. St. Geo.	b	69	45	0
Carcoar	n	57	36	0
Casino	b	87	46	0
Cassilis	b	63	39	0
Clarence	b	83	60	0
C'nd'b'lin.	b	65	39	0
Cooma	n	63	21	0
Coonab'n	n	78	27	0
C'nam ble	b	—	—	0
Cowra	n	69	41	0
Deniliq'n	b	72	27	0
Dubbo	b	97	31	0
Eden	b	62	49	0
Euston	b	77	28	0
Forbes	b	65	32	0
Gl'n Inn's	b	70	46	0
Goulburn	b	69	28	0
Grafton	b	88	54	0
Gulgong	b	67	57	0
Gunned'h	b	76	43	0
Hay	b	67	31	0
Hill End	b	—	—	0
Inverell	b	73	43	0
Kiandra	b	52	18	0
Lismore	b	88	57	0
Maitland	b	73	39	0
Marsdens	n	70	40	0
Menindie	b	66	43	0
Molong	b	71	31	0
Moree	b	83	51	0
Moruya	b	67	41	0
Moss Vale	n	57	38	0
Mt. Hope	b	71	44	0
M. Vict'ria	b	61	33	0
Mudgee	n	75	27	0
M'rr'm'bh	b	73	41	0
M'rr'r'ndi	b	69	40	0
Mus'lbr'k	b	70	33	0
Narrabri	b	79	33	0
Newcastle	b	75	50	0
Nowra	b	—	—	0
Orange	b	51	38	0
Picton	b	67	35	0
P. M'q'rie	b	72	46	0
P. St'ph'n	b	80	67	0
Q'nbeyan	b	61	34	0
Quirindi	b	84	36	0
Singleton	b	62	43	0
Sydney	b	68	48	0
Tamw'rth	b	—	—	0
Taralga	n	49	26	0
Taree	b	72	48	0
T'nt'rfield	b	67	41	0
Wagga	b	68	28	0
Walcha	n	68	31	0
Walgett	b	73	45	0
W'ntw'rth	b	67	38	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	73	48	0
Young	n	81	39	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for years . . . 49·865
Average for 28 years from Jan. 1st to April 30th 20·363
Total Rainfall from January 1st to May 3rd 11·060
Barometers corrected to 32° Fah. and Mean Sea Level



wind in Rain, T. storm, wind ... If it is CALM, the symbol is used without the arrow. Smooth sea. Heavy sea. Very heavy sea.

H. C. RUSSELL,
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Al, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Victoria.—Fresh breeze, generally N.E. to N.W., with moderate sea at Portland and Lake Entrance; frosty at Ballarat; 0·49 rain fell at Cape Schanck.

South Australia.—Cloudy and cold generally inland, fine in the northern parts; at Port Darwin chiefly calm, breeze light; N.E. to N.W. on the south coast; sea moderate at Cape Borda; barometers falling.

Western Australia.—Cloudy at Esperance Bay, and Albany, and Carnarvon; fresh breeze, generally from N.E. to N.W.; smooth sea on the coast; at Cossack, 1·08 rain recorded this morning, and 0·09 at Esperance Bay; barometer rising.

Tasmania.—Cloudy at Low Head, wind generally N.; sea moderate at Southport, at which place 0·15 of rain was recorded, and 0·08 at Hobart.

New South Wales.—Fine throughout the colony, and generally calm; smooth sea all down the east coast; frosty this morning at Albury, Bendemeer, Carcoar, Cooma, Cowra, Marsden, Moss Vale, Mudgee, Walcha, and Young. Additional stations are—Bundarra, calm, fine, temperature 75°; Gulgong, W., fine, clear, temperature 67°; Mount Hope, calm, fine, temperature 70°; Morangarell, N.E., fine, temperature 70°; Warrah, calm, fine, clear, temperature 73°.

Queensland.—Fine generally; wind chiefly S.E. to S.W.; misty rain at Townsville this morning; 0·07 recorded at Rockhampton, and 0·05 at Cooktown. Sea rather rough at the latter station.

New Zealand.—Russell: Barometer 30·2, calm, overcast. Wellington: Barometer 30·0, S.E. wind, overcast. Bluff: Barometer 29·9, E. wind.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N., 12, cloudy, barometer falling, temperature 62°; Cape Otway, N., 6, misty, smooth sea, temperature 60°; Portland, N.N.W., 18, cloudy, smooth sea, temperature 60°; Wilson's Promontory, S.W., 12, cloudy, moderate sea, temperature 55°.

New South Wales.—Cape St. George, S.E., 2, fine, smooth sea, temperature 64°; Clarence River, S.E., fine, smooth sea, temperature 72°; Deniliquin, calm, fine, temperature 68°; Dubbo, S.W., fine, temperature 61°; Eden, N.E., light, fine, smooth sea, temperature 59°; Goulburn, calm, fine, temperature 56°; Menindie, S., fine, temperature 65°; Moruya, S.W., fresh, fine, smooth sea, temperature 61°; Newcastle, S., light, fine, smooth sea, temperature 62°; Port Macquarie, S., 2, fine, smooth sea, temperature 72°; Sydney, N.E., light, fine, smooth sea, temperature 63°; Wentworth, N.W., fine, temperature 58°; Walgett, calm, fine, clear, warm, temperature 74°.

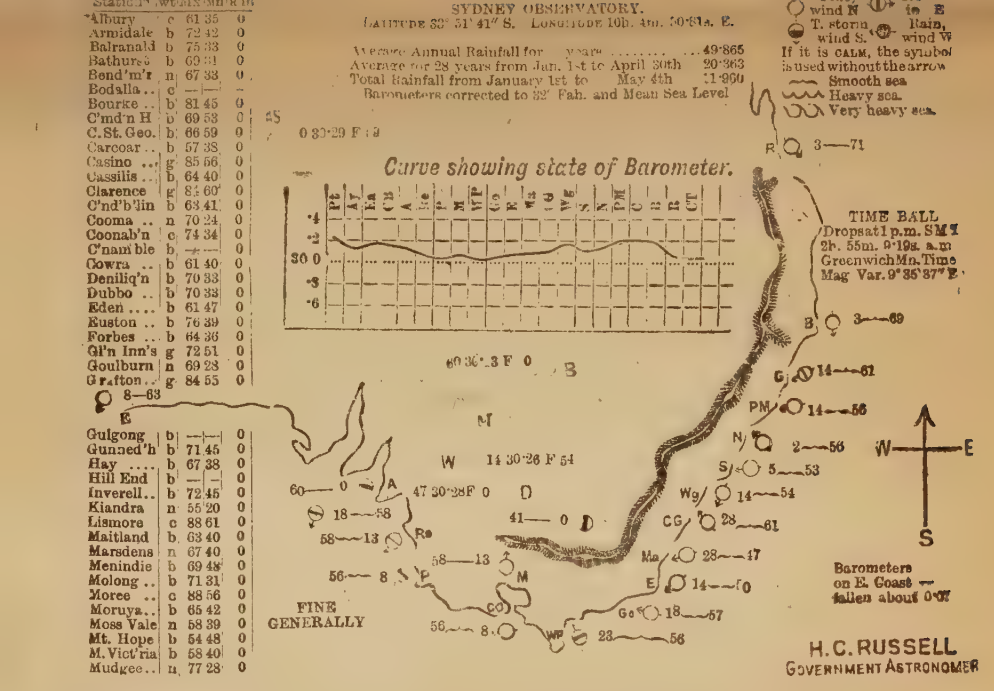
STATE OF RIVERS.

Murrumbidgee: At Wagga, 8 inches above summer level; at Hay, low; at Balranald, below summer level. **Murray:** At Albury, 8 inches above summer level; at Euston, low. **Darling:** At Wentworth, 8 inches above summer level; at Pooncarie, 11 inches, falling; at Menindie, Wilcannia, and Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 4.

Sun rises at 6.38, sets at 5.15; Moon, 6.32 a.m., 5.29 p.m.; Mercury, 4.32 a.m., 4.13 p.m.; Venus, 2.57 a.m., 3.11 p.m.; Mars, 2.18 p.m., 1.25 a.m.; Jupiter, 3.8 p.m., 2.56 a.m.; Saturn, 10.41 a.m., 8.33 p.m. New moon, 4th; full moon, 18th.
High water at Fort Denison: 8.17 a.m., 8.37 p.m.

Stations.	W.T.	M'n	R'n
Albury	c	61	35	0
Armidale	b	72	42	0
Balranald	b	75	33	0
Bathurst	b	69	31	0
Bend'm'r	n	67	33	0
Bodalla	c	—	—	—
Bourke	b	81	45	0
C'md'n H	b	69	53	0
C.St. Geo.	b	66	59	0
Carcoar	b	57	38	0
Casino	g	85	66	0
Cassilis	b	64	40	0
Clarence	g	84	60	0
C'nd'b'lin	b	63	41	0
Cooma	n	70	24	0
Coonab'n	c	74	34	0
C'nam'ble	b	—	—	—
Cowra	b	61	40	0
Deniliq'n	b	70	33	0
Dubbo	b	70	33	0
Eden	b	61	47	0
Euston	b	76	39	0
Forbes	b	64	36	0
Gl'n Inn's	g	72	51	0
Goulburn	n	69	28	0
Grafton	g	84	55	0
Gulgong	b	—	—	0
Gunned'h	b	71	45	0
Hay	b	67	38	0
Hill End	b	—	—	0
Inverell	b	72	45	0
Kiandra	n	55	20	0
Lismore	c	88	61	0
Maitland	b	63	40	0
Marsdens	n	67	40	0
Menindie	b	69	48	0
Molong	b	71	31	0
Moree	c	88	56	0
Moruya	b	65	42	0
Moss Vale	n	58	39	0
Mt. Hope	b	54	48	0
M. Vict'ria	b	58	40	0
Mudgee	n	77	28	0
M'rr'm'bh	b	—	—	0
M'rr'r'ndi	b	66	41	0
Mus'br'k	o	67	40	0
Narrabri	b	75	47	0
Newcastle	b	66	47	0
Nowra	b	—	—	0
Orange	b	55	31	0
Picton	n	65	29	0
P. M'q'rie	b	69	50	0
P. St'ph'n	b	75	58	0
Q'nbeyan	b	53	36	0
Quirindi	b	83	39	0
Singleton	b	63	43	0
SYDNEY	b	64	43	0
Tamw'rth	b	—	—	0
Taralga	n	71	30	0
Taree	b	76	50	0
T'nt'rfield	f	75	48	0
Wagga	b	65	30	0
Walcha	n	67	32	0
Walgett	b	72	48	0
W'ntw'rth	b	73	45	0
Wilcannia	b	—	—	—
W'll'ng'ng	b	73	47	0
Young	n	82	32	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; z, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; q, threatening. The next column, M'n gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

New South Wales.—Fine generally throughout the colony, with falling barometer and smooth sea down the east coast. Of the stations reporting wind this morning, it appears to be chiefly between S.E. and S.W., and very light. Frosty at Bendemeer, Carcoar, Cooma, Goulburn, Kiandra, Marsdens, Moss Vale, Mudgee, Picton, Taralga, Walcha, and Young. Additional stations: Bundarra, calm, fine, temperature 76°; Mount Hope, calm, fine, temperature 53°; Morangarell, N.E., light, fine, temperature 71° Warrah, calm, clear, fine, temperature 71°

Queensland.—Cloudy at Townsville, wind generally very light, and between S. and E.; moderate sea at Cape Moreton; at Cooktown this morning ·03 of rain was recorded.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N., 12, fine, barometer falling, temperature 69°; Cape Otway, W., 6, cloudy, moderate sea, temperature 61°; Portland, W., 18, cloudy, smooth sea, temperature 59°; Wilson's Promontory, N.N.W., 18, squally, moderate sea, temperature 64°.

New South Wales.—Cape St. George, S., light, fine, smooth sea, temperature 65°; Clarence River, N.E., light, fine, smooth sea, temperature 75°; Dubbo, N., light, fine, temperature 62°; Eden, S., light, fine, smooth sea, temperature 64°; Goulburn, W.S.W., light, fine, temperature 58°; Menindie, calm, fine, warm, temperature 65°; Moruya, E., 14, fine, smooth sea, temperature 64°; Newcastle, N.W., light, fine, smooth sea, temperature 72°; Port Macquarie, N.N.E., light, fine, smooth sea, temperature 75°; Sydney, E., light, cloudy, smooth sea, temperature 66°; Wentworth, N.W., light, fine, temperature 66°.

South Australia.—Cloudy weather at Streaky Bay, Cape Borda, Robe, Adelaide, MacDonnell Bay, Port Lincoln, and Wallaroo; scattered clouds on and near the coast, and fine inland. Wind generally N.W. to S.W. and calm; fresh at Cape Borda, with moderate sea. At Eucla 0·01 rain was recorded. Barometer rising.

Western Australia.—Cloudy weather at Perth, Albany, and Esperance Bay. Light variable wind generally except at Carnarvon, where it is blowing rather strong, with moderate sea. Barometer falling.

Victoria.—Cloudy generally; squally, with moderate sea, at Wilson's Promontory. Wind chiefly between N. and W., and light, except at Cape Schanck and Wilson's, where it is blowing fresh. Rain at Melbourne this morning, 0·03. The barometer shows a slight fall, only since yesterday.

Tasmania.—Generally fine. Sky overcast at Falmouth, the sea being dead calm. Light breeze at Low Head from S.S.E., and from the N.N.W. at Hobart.

New Zealand.—Russell, barometer 30·0, with N.W. wind, and cloudy; Wellington, barometer 29·8, wind calm, rainfall 0·75; Bluff, barometer 29·9, wind N.E., overcast; Taranaki, barometer 29·9, wind N.W., overcast, moderate sea.

STATE OF RIVERS.

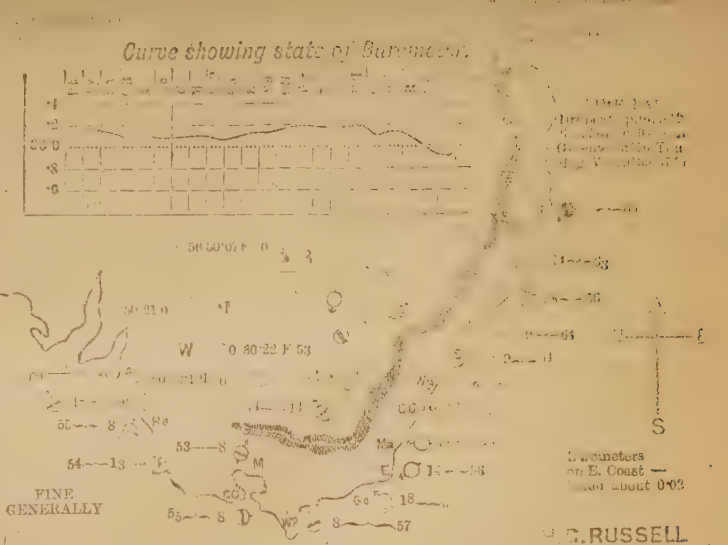
Murrumbidgee: At Wagga, 5 inches above summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, 5 inches above summer level; at Euston, low. Darling: At Wentworth, 7 inches above summer level; at Pooncarie, 8 inches, falling; at Menindie, Wilcannia, and Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 5.

Sun rises at 6.39, sets at 5.14; Moon, 7.31 a.m., 6.9 p.m.; Mercury, 4.31 a.m., 4.12 p.m.; Venus, 2.58 a.m., 3.10 p.m.; Mars, 2.14 p.m., 1.22 a.m.; Jupiter, 3.4 p.m., 2.52 a.m.; Saturn, 10.37 a.m., 8.29 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison: 8.57 a.m., 9.17 p.m.

Albury ..	g	70 39		0
Armidale	c	72 49		0
Balranald	b	89 52		0
Bathurst	n	66 28		0
Bend'n'r	g	74 43		0
Bedalla ..	b	— —		—
Bourke ..	n	83 53	0·30	
Cape Hill		77 —		—
C. St. Geo.	b	66 62		0
Carcoar ..	n	54 35		0
Casino ..	b	83 49		0
Casellis ..	b	68 44		0
Clarence	b	84 60		0
C'nd'b'lin	g	62 —		—
Cooma ..	n	67 25		0
Coonab'n	b	78 37		0
Coramble	r	— —		—
Cowra ..	n	64 38		0
Deniliq'n	b	86 38		0
Dubbo ..	b	75 39		0
Eden	b	65 49		0
Euston ..	b	84 64		0
Forbes ..	g	65 37		0
Gl'n Inn's	b	75 53		0
Goulburn	b	64 27		0
Grafton ..	f	83 59		0
Gulgong ..	b	64 55		0
Gunned'h	b	74 53		0
Hay	b	76 45		0
Hill End	b	— —		—
Inverell ..	b	73 53		0
Kiandra ..	n	54 21		0
Lismore ..	c	86 55		0
Maitland	b	68 45		0
Marsdens	c	69 42		0
Menindie	b	73 48		0
Molong ..	b	69 33		0
Moree ..	b	83 58		0
Moruya ..	b	69 45		0
Moss Vale	—	— —		—
Mt. Hope	g	55 48		0
M. Vict'ria	b	59 38		0
Mudgee ..	b	74 35		0
M'rr'mb'gh	b	73 38		0
M'rr'ndi	b	70 43		0
Mus'br'k	b	72 39		0
Narrabri	o	80 46		0
Newcastle	b	74 53		0
Nowra ..	b	71 46		0
Orange ..	g	55 30		0
Picton ..	n	69 33		0
P. M'q'rie	c	73 57		0
P. St'ph'n	b	81 65		0
Q'nbeyan	b	58 39		0
Quirindi	b	84 32		0
Singleton	b	71 47		0
SYDNEY ..	b	68 51		0
Tamw'rth	b	73 40		0
Taralga ..	n	60 29		0
Taree	b	80 54		0
T'nt'rfield	b	77 48		0
Wagga ..	g	63 36		0
Walcha ..	g	68 33		0
Walgett ..	g	66 56		0
W'ntw'rth	b	80 45		0
Wilcannia	b	— —		—
W'll'ng'ng	b	73 46		0
Young ..	h	84 52		0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M°, gives the maximum temperature for previous 24 hours. M°n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curves show the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Be, Robe; P, Portland; Sherbrooke; W.P. Wilson's Promontory; Go, Gabo; E, Eden; Sia, Jervis Bay, Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke and Lake Darling, beginning with Western Australia, and passing along eastwards; northerly winds precede them, and southerly following.

Western Australia.—Esperance Bay, barometer 30·16, temperature 58°, weather cloudy and threatening, with light south wind and moderate sea. Rainfall, 0·12.

South Australia.—On south coast generally cloudy and gloomy with light northerly winds and moderate sea. Inland and in Northern Territory fine, with light E. and S.E. winds. No rain reported. Extremes of barometers and temperature: Alice Springs, 30·22; Port Darwin, 29·86 and 86°; and MacDonnell Bay, 52°. Rainfall at Robe, 0·03.

Victoria.—Generally fine, but cloudy, and cold, with light northerly winds, and moderate sea. Hoar frost reported inland. Mist, haze, and heavy dew along the coast in early morn, but no rain fallen. Extremes of barometers and temperature: Omeo 30·19 and 41°, Hamilton 30·02, and Horsham 58°.

Tasmania.—Generally fine, but cloudy, with light east winds on north coast, and westerly winds on east coast. Dew along coast, and dead calm sea off Falmouth. Rainfall at Southport, 0·08. Extremes of barometers and temperature: Low Heads 30·08, Hobart 30·00, Circular Heads, 56° and 50 at Falmouth.

New Zealand. Generally fine, but cloudy, with west winds on North Island, and calm at extreme south of Middle Island. Rough sea on west coast. Extremes of barometers: Russell 30·1, and Wellington 29·8.

Queensland.—At extreme south of east coast passing showers from S.S.W., farther north cloudy, with E. wind, thence to Cooktown fine, with S.E. wind. Sea moderately smooth. Rainfall at Rockhampton, 0·04. Extremes of barometers and temperature: Brisbane 30·16 and 65°, Townsville 29·77, and Cooktown 89°.

New South Wales.—On coast fine, with light westerly winds and calm, slightly fallen barometers, and smooth sea. Inland fine, with clouds and unsettled weather in western parts; fallen barometers and frosts on mountains. Light rain fallen at Bourke, and at 9 a.m. it was raining very slightly to E.S.E. of it, at Coonamble. Extremes of barometers and temperature at 9 a.m.: Port Macquarie 30·24, [illegible] Inverell 64°, and Kiandra 31°. [illegible] 72°, min. 50°, calm and little [illegible] 40°, cloudy, with light W. wind; [illegible] calm and fine. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, N.E., 13, cloudy and hazy, smooth sea, temperature 60°; Melbourne, N., 13, fine, temperature 72°; Cape Otway, E., 8, fine and frosty, moderate sea, temperature 63°; Lake Entrance, E., 18, fine but cloudy, smooth sea, temperature 62°; Portland, N.W., 8, fine but cloudy, smooth sea, temperature 61°.

New South Wales.—Cape St. George, N., 14, fine, smooth sea, temperature 70°; Deniliquin, calm, fine and clear, temperature 68°; Dubbo, S., raining and cloudy, temperature 61°; Eden, N.E., 14, fine, smooth sea, temperature 64°; Goulburn, N.E., 14, fine, temperature 57°; Menindie, calm, fine and [illegible] temperature 65°; Moruya, N.E., 28, fine, smooth sea, temperature 66°; Newcastle, S., 14, fine, smooth sea, temperature [illegible] Port Macquarie, S.S.E., fine, smooth sea, temperature 72°; Sydney, E.N.E., 6, fine but cloudy, smooth sea, temperature [illegible] worth, N., 18, fine, temperature 64°; Walgett, S.E., [illegible] perature 70.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 4 inches above summer [illegible]; at Hay, below summer level; at Balranald, 3 feet below summer level. Murray: At Albury, 3 inches below summer [illegible], at Euston, low. Darling: At Wentworth, 7 inches above summer level; at Menindie, Wilcannia, and Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 6.

Sun rises at 6.39, sets at 5.13; Moon, 8.32 a.m., 6.56 p.m.; Mercury, 4.31 a.m., 4.11 p.m.; Venus, 2.58 a.m., 3.9 p.m.; Mars, 2.10 p.m., 1.19 a.m.; Jupiter, 3 p.m., 2.48 a.m.; Saturn, Rises a.m., 8.26 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison, May 6: 9.38 a.m., 9.58 p.m.

Stations	Int	Mx	mn	Rain
Albury	c	70	41	0
Armidale	c	66	50	0
Balranald	b	89	33	0
Bathurst	g	68	37	0·16
Bend'n'r	g	65	4	0·02
Bodalla	–	—	—	0
Bourke	b	93	53	0
C'nd'n H	b	76	58	0
C. St. Geo.	c	72	58	0·04
Carcoar	g	67	40	–
Casino	u	82	53	0·06
Cassilis	b	64	47	0
Clarence	g	84	60	0
C'nd'b'lin	b	62	41	0
Cooma	c	65	30	0
Coonab'n	b	70	42	0
C'oamble	b	—	—	0
Cowra	n	62	40	0
Deniliq'n	b	79	45	0
Dubbo	b	81	41	0·11
Eden	u	64	54	0
Euston	b	86	44	0
Forbes	b	58	41	0
Gl'n Inn's	g	77	51	0·09
Goulburn	g	66	34	0·16
Grafton	f	86	62	0·02
Gulgong	f	59	52	0
Gunned'h	b	75	56	0·14
Hay	b	77	46	0
Hill End	b	—	—	0·08
Inverell	o	76	57	0
Kiandra	n	50	25	0
Lismore	r	79	60	0·07
Maitland	b	70	47	0
Marsdens	b	69	40	0
Menindie	b	73	53	0
Molong	f	50	33	0·11
Moree	g	77	53	0·01
Moruya	g	72	50	0
Moss Vale	u	60	44	0·13
Mt. Hope	b	59	52	0
M. Vict'ria	b	59	43	0·05
Mudgee	f	75	40	0·04
M'rr'm'bh	b	72	39	0
M'rr'ndi	b	63	48	0
Mus'br'k	b	74	50	0
Narrabri	g	79	50	0·17
Newcastle	b	73	62	0
Nowra	–	—	—	–
Orange	g	57	40	0·20
Picton	c	70	33	0·08
P. M'q'rie	b	73	58	0
P. St'ph'n	b	81	63	0
Q'nbeyan	–	—	—	–
Quirindi	b	85	30	0
Singleton	b	71	52	0
Sydney	c	68	55	0·22
Tamw'rth	–	—	—	–
Taralga	b	77	60	0
Taree	g	61	41	0·14
T'nt'rfield	g	75	55	0·13
Wagga	b	64	35	0
Walcha	c	66	48	0·03
Walgett	b	71	54	0
W'ntw'rth	b	79	44	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	77	51	0·15
Young	b	65	40	0

SYDNEY OBSERVATORY.

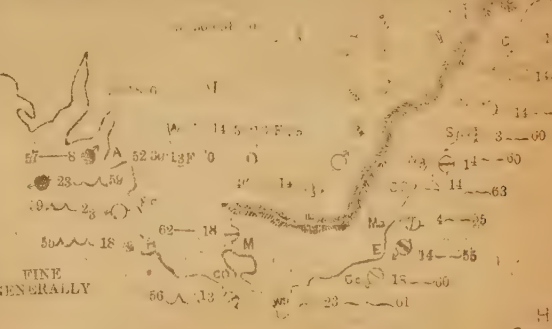
Average Annual Rainfall for

Average for 28 years from Jan.

Total Rainfall from January 1st to

Barometers corrected to 32° Fah. and

Curve showing state of Barometer.



Barometers on E. Coast — fallen about 0·10

FINE GENERALLY

H. C. RUSSELL, GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the latter stations the column headed W.T. gives the state of the weather at 9 a.m., b stanch-g for blue sky; c, detached clouds; d, drizzling rain; f, fog g, gloomy; h, hazy; m, misty n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Mx gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature. Rn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CE, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W.P. Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis B., Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence R.; B, Brisbane; R. Rockhampton.; Ct, Cooktown. Inland the state of barometer is given by figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve encircles one as a glance to trace the depressions, being followed with Western Australia, and passing along eastwards; northerly winds preceding these, and southerly following.

Western Australia.—Fine, with E. and S. winds on west coast; cloudy, with north end west winds on south coast. Perth and Esperance Bay report rough sea, Carnarvon moderate. Rainfall: Albury and Esperance Bay, each 0·03. Extremes of barometers and temperature: Geraldton, 30·32; Cossack, 20·90; Carnarvon, 75°; and Perth, 48°.

South Australia.—On south coast, cloudy and showery, with squally west and north winds and rough seas. Inland and in Northern Territory fine, with E. and S.E. winds. Rainfall: Cape Border, 0·12; Port Lincoln, 0·10; MacDonnell Bay, 0·07; Adelaide and Robe, each 0·01. Extremes of barometers and temperature: 30·25 at Alice Springs, 29·86 at Port Darwin, and 57° at MacDonnell Bay.

Victoria.—Cloudy, gloomy, and showery, with fresh northerly winds and rough sea on S.W. coast; hazy and misty on coast; fine and clear on mountains. Rainfall: Portland and Cape Otway, 0·03 and 0·02 respectively. Extremes of barometers and temperature: Omeo, 30·03 and 46°; Wilson's Promontory, 29·88 and 61°.

Tasmania.—Generally cloudy and misty, with light north and west winds and calm; sea rough off Circular Heads on north-west coast; dead calm off Falmouth on E. coast; no rain fallen. Extremes of barometers and temperature: 29·94 and 46° at Southport, 29·79 at Falmouth, and 62° at Circular Heads.

New Zealand.—On North Island cloudy, with S.W. wind, and rough sea on east coast; on Middle Island fine, with N.E. wind; barometers generally 30·3.

New South Wales.—Generally cloudy in coast and mountain districts, with westerly winds and calm, fallen barometers, and risen temperature. Light rain recorded in some districts, especially beyond mountains west and north-west of Sydney. It was heaviest at Sydney, and came on in early morning, accompanied by lightning and thunder from west. At 9 a.m. it was still showery at Lismore on the Richmond. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·18; Wagga, 29·98; Newcastle, 67°, and Cooma, 36°. Extra stations: Bundarra, max. 75°, min. 52°, calm and cloudy; Morangarell, max. 64°, min. 39°, fine; Warrah, max. 76°, min. 50°, dull and threatening. For further particulars see map.

Queensland.—Cloudy in south, with southerly winds; calm, and fine in north. Rainfall: Brisbane, 0·15; Rockhampton, 0·09; Cape Moreton, 0·04. Extremes of barometers and temperature: 30·12 and 67° at Brisbane; 29·78 at Townsville; and 89° at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, N.N.W., 28, fine and squally, rough sea, temperature 61°; Melbourne, W., 13, fine but cloudy, temperature 67°; Cape Otway, N.W., 17, fine but misty, rough sea, temperature 62°; Wilson's Promontory, N.W., 23, fine but cloudy, moderate sea, temperature 60°; Portland, W.N.W., 34, fine but squally, smooth sea, temperature 62°; Lake Entrance, N., 13, fine, smooth sea, temperature 69°.

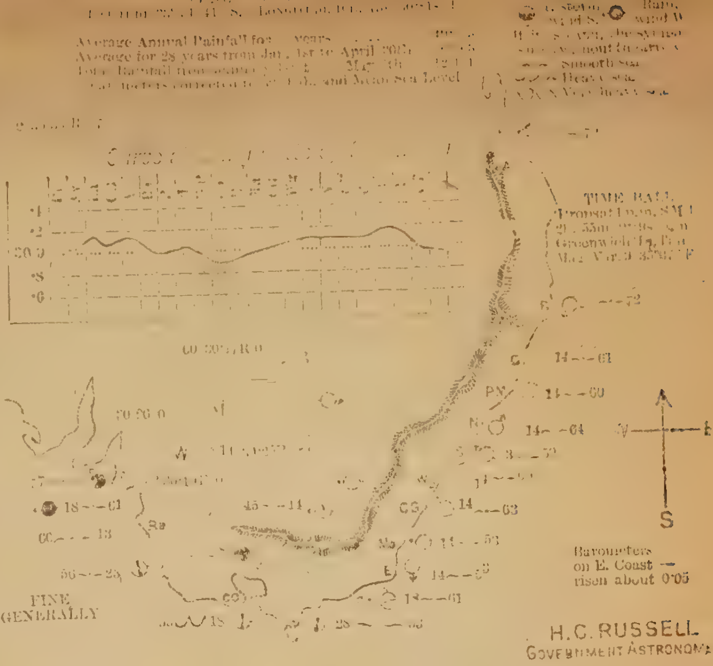
New South Wales.—Cape St. George, calm, fine, smooth sea, temperature 70°; Clarence River, N., 14, cloudy, smooth sea, temperature 76°; Deniliquin, S.W., fine and clear, temperature 67°; Dubbo, calm and fine, temperature 65°; Goulburn, W., 14, fine, temperature 60°; Menindie, calm, fine and clear, temperature 66°; Moruya, S.E., 28, fine, smooth sea, temperature 68°; Newcastle, S.E., 14, fine, smooth sea, temperature 69°; Port Macquarie, N.W., 14, cloudy, smooth sea, temperature 75°; Sydney, W., 8, fine, smooth sea, temperature 70°; Wentworth, N.W., 14, fine and clear, temperature 62°; Walgett, W., fine, temperature 75°.

ASTRONOMICAL MEMORANDA FOR MAY 7.

Sun rises at 6.40, sets at 5.12; Moon, 9.32 a.m., 7.48 p.m.; Mercury, 4.31 a.m., 4.9 p.m.; Venus, 2.59 a.m., 3.9 p.m.; Mars, 2.7 p.m., 1.17 a.m.; Jupiter, 2.55 p.m., 2.43 a.m.; Saturn, 10.30 a.m., 8.22 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison, May 7: 10.19 a.m., 10.40 p.m.

Albury	b	[illegible]		0
Armidale	f	65 [illegible]		0
Balranald	b	[illegible] 31		0
Bathurst	b	[illegible]		0
Bo'd'n't	f	65 [illegible]		[illegible]
Bodalla ..	g			0
Bourke ..	b	[illegible]		0
C'nd'n H	b	[illegible]		[illegible]
C. St. Geo.	b	72 [illegible]		0
Carcoar ..	n	57 41		0
Casino ...	b	72 [illegible]		0
Cassilis ...	b	[illegible] 41		0
Clarence	b	84 6[illegible]		0
C'nd'b'lin	b	71 42		0
Cooma ..	n	70 3[illegible]		0
Coonab'n	b	75 34		[illegible]
C'nam'ble	b	— —		0
Cowra ..	b	72 3[illegible]		0
Deniliq'n	b	76 4[illegible]		0
Dubbo ..	b	71 35		0
Eden	b	65 45		0
Euston ..	b	80 40		0
Forbes ..	b	58 39		0
Gl'n Inn's	b	70 41		0
Goulburn	b	71 39		0
Grafton ..	b	76 56		0
Gulgong	b	70 60		0
Gunned'h	b	72 45		0
Hay	b	75 40		0
Hill End	b	— —		0
Inverell ..	b	67 44		0
Kiandra	c	55 35		0
Lismore	b	71 56		0·04
Maitland	b	80 44		0
Marsdens	b	76 46		0
Menindie	b	75 50		0
Molong ..	n	71 33		0
Moree ..	b	7[illegible] 48		0
Moruya ..	b	72 45		0
Moss Vale	b	62 47		0
Mt. Hope	b	58 51		0
M. Vict'ria	b	60 48		0
Mudgee ..	n	78 33		0
M'rr'm'bh	b	78	37	0
M'rr'r'ndi	b	65	43	0·30
Mus'b'r'k	b	70	40	0
Narrabri	b	78	42	0
Newcastle	b	72	43	0
Nowra ..	.	—	..	—
Orange ..	b	58	[illegible]	0
Picton ..	n	71	31	0
P. M'q'rie	b	75	54	0
P. St'ph'n	b	82	62	0
Q'nbeyan	b	64	38	0
Quirindi	b	85	31	0
Singleton	b	79	47	0
SYDNEY ..	b	71	54	0
Tamw'rth	b	75	40	0
Taralga ..	b	65	45	0
Taree	b	77	54	0·01
T'nt'rfield	b	67	42	0·1[illegible]
Wagga ..	b	72	35	0
Walcha ..	f	64	38	0
Walgett ..	b	76	47	0
W'ntw'rth	b	75	41	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	75	51	0
Young ..	b	88	36	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W. T. gives the state of the weather at 9 a.m., b, blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy, h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain, s, snow; t, thunder, u, ... The next column, Mx gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth, Ay, Albany; Eu, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Fine, but cloudy, with light E. and S. winds on west coast; gloomy, with light west winds on south coast; sea moderate; no rain fallen. Extremes of barometer and temperature: Geraldton, 30·29; Cossack, 29·94 and 82°; Esperance Bay, 50°, and heavy dew.

South Australia.—Generally cloudy and raining on south coast, with light W. and N. winds and moderate sea. Inland and in Northern Territory, fine, with light S.E. winds and calms. Rainfall: Port Lincoln, 0·16; Adelaide, 0·21; Cape Border, 0·05; M'Donnell Bay, 0·20; Robe, 0·13. Light rain at 9 a.m. at Adelaide, showery and squally at Cape Borda, and passing showers at M'Donnell Bay. Extremes of barometers and temperature: Alice Springs, 30·35; Port Darwin, 29·90 and 85; and M'Donnell Bay, 57°.

Victoria.—Generally cloudy and raining, with squally west winds; sea rough on S.W. coast, moderate on S.E. coast; passing showers at Melbourne; misty, squally, and rough sea off Capes Otway and Schanck; the latter place reports fierce squalls from W.N.W. during night; Wilson's Promontory reports the same in early morning. Rainfall: Portland, ·24; Cape Otway, 0·04; Melbourne 0·01; Wilson's Promontory, 0·20. Extremes of barometers and temperature: Horsham, 30·05 and 58°; Wilson's Promontory, 29·80 and 53°.

Tasmania.—Generally raining and cloudy, with fresh westerly winds and moderate sea; showery, and rainfall 0·30 at Southport; misty rain, and rainfall 0·27 at Hobart. Rainfall: At Low Heads, 0·14. Extremes of barometers and temperature: 29·76 and 53° in north; 29·49 and 47° in south.

New Zealand.—Fine, but cloudy, with southerly winds and calms, and barometers steady at 30·3.

New South Wales.—Generally fine, with light westerly winds on coast, and calm inland. Light rain recorded at a few stations in north coastal districts, heaviest at Camden Haven. Frosts and fogs reported from places on Mountains; heavy dew in places on coast; at Sydney 0·002. Extremes of barometer and temperature: Menindie, 30·26; Gabo Island, 29·90; Lismore, 66°; and Bathurst, 41°. Extra stations: Bundarra, max. 78°, min. 43°, calm and foggy; Morangarell, max. 75°, min. 38°, fine; Warrah, max. 71°, min. 43°, calm, clear, and warm. For further particulars see map.

Queensland.—Generally fine, with southerly winds, and calm and moderate sea. Foggy at Rockhampton, cloudy at Townsville. Extremes of barometers and temperature: 30·19 at Brisbane; 29·80 at Townsville; 89°. at Cooktown; and 60° at Cape Moreton.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, W., 23, cloudy and misty, rough sea, temperature 60°; Melbourne, W.S.W., 12, cloudy and gloomy, temperature 60°; Cape Otway, W.N.W., 13, cloudy and misty, rough sea, temperature 57°; Lake Entrance, W., 23, cloudy, and smooth sea, temperature 76°; Portland, W., 34, fine but cloudy, smooth sea, temperature 61°; Wilson's Promontory, W., 34, cloudy and squally, rough sea, temperature 56°.

New South Wales.—Cape St. George, W., 14, fine but cloudy, smooth sea, temperature 64°; Clarence River, fine smooth sea, temperature 75°; Deniliquin, N.W., fine but cloudy, temperature 72°; Dubbo, W., 14, fine, temperature 66°; Eden, W.N.W., 14, fine, smooth sea, temperature 72°; Goulburn, W.N.W., 14, fine, temperature 62°; Menindie, W.S.W., 14, fine and clear, temperature 67°; Newcastle, N.W., 14, fine, smooth sea, temperature 7[illegible]; Port Macquarie, calm, fine, smooth sea, temperature [illegible]; Sydney, E., 6, fine, smooth sea, temperature 71°; Wentworth, W.S.W., fine, temperature 63°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 3 inches above summer level; at Hay, below summer level; Balranald, 3 feet below summer level. Murray: At Albury, 2 inches above summer level; at Euston, low. Darling: At Wentworth, 5 inches above summer level; at Pooncarie, Menindie, Wilcannia, and Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 8.

Sun rises at 6.11, sets at 5.11; Moon, 10.30 a.m., 8.44 p.m., Mercury, 4.33 a.m., 4.8 p.m.; Venus, 3 a.m., 3.3 p.m.; Mars, 2.4 p.m., 1.14 a.m.; Jupiter, 2.51 p.m., 2.39 a.m.; Saturn, 10.25 a.m., 8.18 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison, May 8: 11.3 a.m., 11.25 p.m.

METEOROLOGICAL ABSTRACT, APRIL, 1886,
with results for the same month during the preceding 27 years.

—	Barometer at 32° Fah. and mn. sealev'l.	Temperature in Shade. Mean Max.	Mean Min.	Mean.	Rainfall. Amount of Inches.	No. of days.
1886: April...	30·071	71·2	59·6	65·4	2·996	13
Average for 28 years	30·100	71·[illegible]	59·1	64·3	6·517	13·1
Monthly Extremes: Highest Year	30·2[illegible]7 1885	74·8 1886	62·0 1867	69·6 1864	2[illegible] 1861	23 1867
Lowest Year	29·970 1882	68·3 1870	53·9 '59 & '62	62·1 1872	[illegible] 1859	[illegible] 1868

Wind.—Prevailing direction, N.; average prevailing direction for 28 years, W.; April, 1886, mean miles per hour, 9·4.

Temperature.—Highest shade temperature, 80·0, on the [illegible]; highest shade temperature in any April since 1859, 88·0, on the 3rd, 1859; lowest shade temperature, 49·9, on the [illegible]; lowest shade temperature in any April since 1859, 44·6, on the [illegible] 1864.

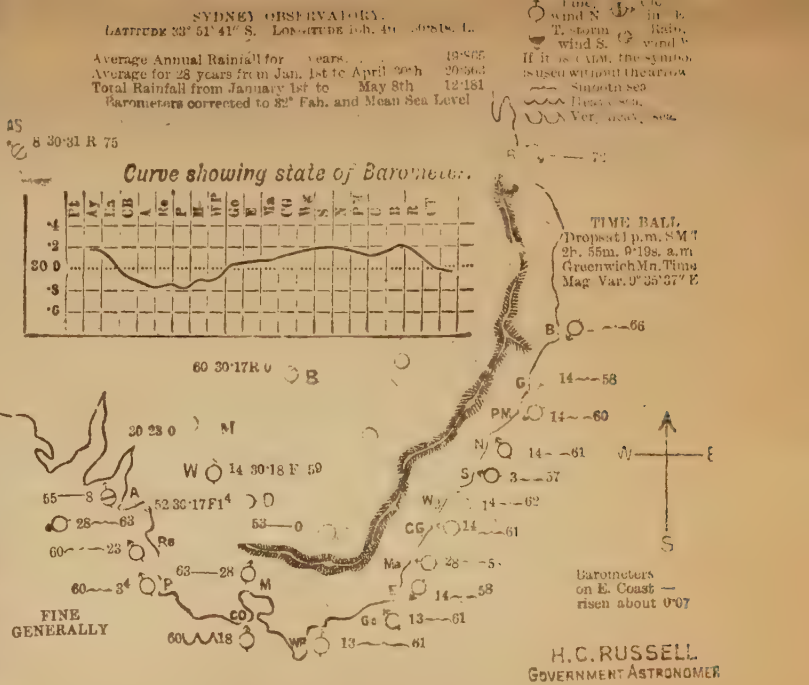
Rainfall.—Greatest fall in one day, 0·950, on the 15th; greatest fall in one day in any April since 1859, 7·522, on the [illegible] 1860.

H. C. RUSSELL, Government Astronomer.
Sydney Observatory, May 7.

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 52·8s. E.

Average Annual Rainfall for [illegible] years 49·65
Average for 28 years from Jan. 1st to April 29th 20·56
Total Rainfall from January 1st to May 8th 12·81
Barometers corrected to 32° Fah. and Mean Sea Level

Stations	wt	Mx	min	in
Albury	b	69	44	0·01
Armidale	b	55	35	0
Balranald	b	83	—	0
Bathurst	b	69	33	0
Bend'm'r	n	65	31	0
Bodalla ..	b	—	—	0
Bourke ..	b	81	45	0
C'md'n H	b	76	51	0
C. St. Geo.	b	72	59	0
Carcoar ..	b	58	41	0
Casino ..	b	82	49	0
Cassilis ..	b	70	44	0
Clarence	b	85	60	0
C'nd'b'lin	b	70	46	0
Cooma ..	b	69	40	0
Coonab'n	n	74	31	0
C'nam ble	b	—	—	0
Cowra ..	b	71	40	0
Deniliq'n	b	75	41	0
Dubbo ..	h	75	37	0
Eden	b	71	52	0·01
Euston ..	b	77	42	0
Forbes ..	b	68	39	0
Gl'n Inn's	b	73	46	0
Goulburn	b	68	34	0
Grafton ..	b	87	47	0
Gulgong	b	69	60	0
Gunned'h	b	74	44	0
Hay	b	72	43	0
Hill End	b	—	—	0
Inverell ..	b	69	36	0
Kiandra	c	57	40	0
Lismore	b	86	54	0
Maitland	b	73	43	0
Marsdens	b	75	45	0
Menindie	b	75	52	0
Molong ..	b	64	38	0
Moree ..	b	77	46	0
Moruya ..	b	74	51	0
Moss Vale	b	63	42	0
Mt. Hope	b	71	39	0
M. Vict'ria	b	62	43	0
Mudgee ..	n	78	32	0
M'rr'm'bh	-	—	—	-
M'rr'n'di	b	61	43	0
Mus'br'k	b	76	38	0
Narrabri	b	75	37	0
Newcastle	b	74	52	0
Nowra ..	-	—	—	-
Orange ..	n	58	34	0
Picton ..	b	74	37	0
P. M'q'rie	b	75	50	0
P. St'ph'n	b	79	58	0
Q'nbeyan	b	63	41	0
Quirindi	b	85	37	0
Singleton	b	74	47	0
SYDNEY ..	b	75	52	0
Tamw'rth	b	74	31	0
Taralga ..	b	69	31	0
Taree	b	79	51	0
T'nt'rfield	n	72	36	0
Wagga ..	b	73	37	0
Walcha ..	b	80	47	0
Walgett ..	b	63	45	0
W'nsw'rth	b	75	43	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	84	55	0
Young ..	b	87	37	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; l, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay. Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River. B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Esperance Bay: Cloudy and threatening, with fresh S. wind and rough sea. Barometer, 30·16; temperature, 58°; and rainfall, 0·26.

South Australia.—Generally fine, but cloudy on coast, with rather strong N. and N.W. winds, and rough sea; dense fog at Streaky Bay. Inland fine, threatening in places, with variable winds. Rainfall: Cape Borda, 0·01; Adelaide, 0·06. Extremes of barometers and temperature: Alice Springs, 30·31; Robe, 29·84; Port Darwin, 84°; and 55° M'Donnell Bay.

Victoria.—Generally fine, with rather strong squally north winds, and fallen barometers. Sea rough off Capes Otway and Schanck. Rainfall: Horsham, 0·05; Portland, 0·03; Wilson's Promontory, 0·03; Ballarat, 0·11; Lakes Entrance, 0·02. Extremes of barometers and temperature: Omeo, 30·05 and 61°; Hamilton, 29·81 and 55°.

Tasmania.—Generally cloudy and gloomy, with rather strong squally north winds, and moderate sea. Rainfall: Hobart, 0·08; Low Heads, 0·04. Extremes of barometers and temperature: Falmouth, 29·73 and 62°; South Port, 29·59; and Hobart, 53°. Later: Circular Head, barometer 29·78 and 60°, strong N. wind, fine but cloudy weather, rough sea, and rainfall 0·03.

New Zealand.—Generally cloudy and threatening, with north-east winds and calm, and fallen barometers. Rough sea on west coast. Barometers: 30·0 in north, and 29·8 in south.

Queensland.—Generally fine, with light E. and S.E. winds, and moderate sea; no rain fallen. Extremes of barometers and temperature: Brisbane, 30·21 and 66°; Townsville, 29·80; Cooktown, 88°.

New South Wales.—Generally fine and clear; on coast light westerly winds, with haze and smooth sea; on mountains frosty, but generally both temperature and barometers have risen. Light rain has fallen at Albury and Eden. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·23; Eden, 30·03; Cape St. George, 61°; and Bathurst, 41°. Extra stations: Bundarra, max. 73°, min. 36°, calm fine, and cold; Morangarell, max. 73°, min. 38°, fine, and clear; Warrab, max. 74°, min. 41°, calm, fine, and clear. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, W.N.W., 13, cloudy and misty, squally, rough sea, temperature 65°; Portland, W., 34, overcast, like rain, smooth sea, temperature 58°; Wilson's Promontory, N., 18, squally, slight sea, temperature 73°.

New South Wales.—Cape St. George, calm, fine, smooth sea, temperature 70°; Deniliquin, N., fine, dusty, temperature 72·1; Dubbo, calm, fine, temperature 68°; Eden, N.E., 14, fine, smooth sea, temperature 61°; Walgett, calm, fine, temperature 74°; Goulburn, N.W., light, fine, temperature 62°; Menindie, calm, fine, temperature 72°; Moruya, S.E., 28, fine, smooth sea, temperature 74°; Newcastle, N.W., light, fine, smooth sea, temperature 76·5; Port Macquarie, S.E., 14, fine, smooth sea, temperature 75°; Sydney, N.E., light, fine, smooth sea; Wentworth, N., 30, fine, dusty, temperature 65°.

STATE OF RIVERS.

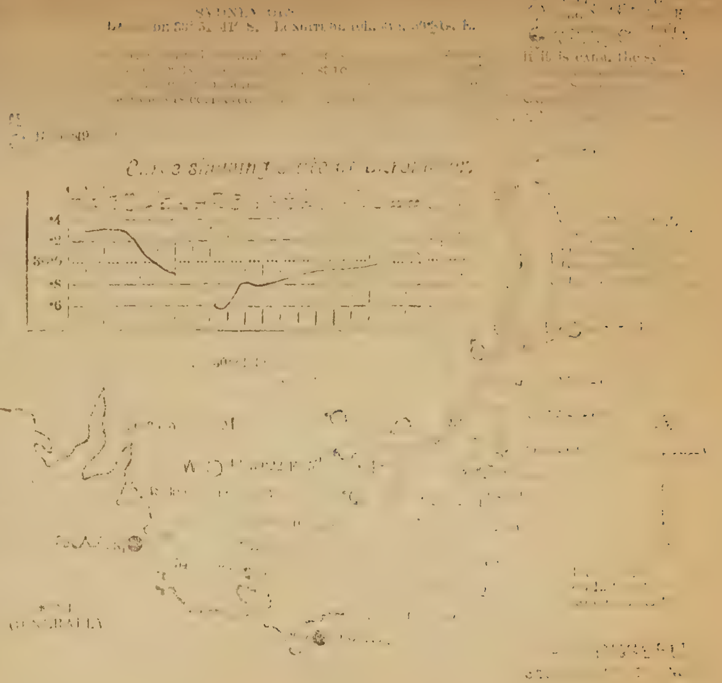
Murrumbidgee: At Wagga, 4 inches above summer level; at Hay, below summer level; Balranald, 3 feet below summer level. Murray: At Albury, 2 inches above summer level; at Euston, low. Darling: At Wentworth, 4 inches above summer level; at Pooncarie, Menindie, Wilcannia, and Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 10.

Sun rises at 6.42, sets at 5.10; Moon, 12.14 p.m., 10.48 p.m.; Mercury, 4.37 a.m., 4.6 p.m.; Venus, 3.2 a.m., 3.6 p.m.; Mars, 1.57 p.m., 1.8 a.m.; Jupiter, 2.43 p.m., 2.31 a.m.; Saturn, 10.19 a.m., 8.11 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison: 12.13 a.m., 12.39 p.m.

Stations	W.T.	Max.	Min.	Rain
Albury	c	75	42	0·07
Armidale	b	57	38	0·08
Balranald	b	73	—	0·02
Bathurst	g	70	35	0·02
Bend'm'r	g	68	31	0·08
Bodalla	f	—	—	0·05
Bourke	b	79	44	0
C'md'n H	c	76	48	0
C.St.Geo.	b	74	58	0
Carcoar	g	59	46	0·19
Casino	b	82	43	0
Cassilis	b	70	48	0
Clarence	b	84	55	0
C'nd'b'lin	c	75	51	0·[illegible]
Cooma	c	67	40	0
Coonab'n	b	77	41	0·[illegible]
C'namble	b	—	—	0
Cowra	b	73	39	0·[illegible]
Deniliq'n	b	83	37	0
Dubbo	b	71	41	0·06
Eden	b	63	49	0
Euston	b	71	34	[illegible]
Forbes	b	62	47	0·[illegible]
Gl'n Inn's	b	75	34	0
Goulburn	b	72	42	0
Grafton	b	99	43	0
Gulgong	g	70	55	0
Gunned'h	b	71	[illegible]	0
Hay	g	89	35	0·[illegible]
Hill End	c	—	—	0
Inverell	b	68	28	0
Kiandra	c	78	31	0·[illegible]
Lismore	b	87	55	0
Maitland	b	72	[illegible]	0
Marsdens	b	78	46	0·27
Menindie	b	61	45	0
Molong	c	63	43	0·04
Moree	b	83	49	0
Moruya	b	72	52	0·[illegible]
Moss Vale	b	60	49	0
Mt. Hope	c	52	46	0
M.Vict'ria	c	64	45	0
Mudgee	b	72	33	0
M'rr'm'bh	b	69	47	0·31
M'rr'ndi	b	60	44	0
Mus'lbr'k	b	78	51	0·01
Narrabri	b	75	36	0·02
Newcastle	b	83	58	0·01
Nowra	b	77	54	[illegible]
Orange	g	61	[illegible]	0·05
Picton	c	74	18	0
P. M'q'rie	b	73	53	0
P. St'ph'n	b	79	55	0
Q'nbeyan	c	66	43	0
Quirindi	b	85	36	0
Singleton	b	76	43	0
SYDNEY	b	75	59	0·02
Tamw'rth	b	75	39	0·03
Taralga	b	73	43	0
Taree	b	81	57	0
T'nt'rfield	b	72	33	0
Wagga	b	76	38	0·17
Walcha	g	66	35	0
Walgett	b	76	51	0
W'ntw'rth	g	64	42	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	75	57	0
Young	b	72	42	0·35



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.: b, [illegible] sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; [illegible] m, misty; p, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; [illegible] The next column [illegible] the maximum temperature [illegible] the corresponding [illegible] temperature [illegible] the rain for [illegible] The symbols used in the [illegible] are explained on the margin. At [illegible] the wind symbol is placed like a vane pointing to the direction from which [illegible] coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing [illegible] state of the sea; [illegible] the shade temperature [illegible] curve shows the state of barometers round the coast from Perth to Cooktown:—[illegible] [illegible] M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Mo, Moruya; CG, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and [illegible] Springs. The barometer curve enables one at a glance to trace the [illegible] [illegible] with Western Australia, and passing along eastwards; northerly [illegible] preceding them, and southerly following.

Western Australia.—On west coast fine, with E. and S.E. winds; on south coast, westerly winds, with rain at Esperance Bay, and moderate sea. Extremes of barometer and temperature: 30·39 and 36· at Esperance Bay.

South Australia.—Generally fine [illegible] ening inland to Hawden, with showers [illegible] places. Rain recorded inland to [illegible] coast, from 40 to 50 points. Winds rather [illegible] N.W. and S.W. Stations not in map:—Adelaide, barom. [illegible] temperature 59·, wind fresh W.N.W., rainfall [illegible] passing showers; Cape Borda, 30·10, 59·, strong S.W., [illegible] squally, showery, and rough sea. In Northern Territory, fine, with light [illegible] and S.E. winds. Rainfall at Port Darwin, [illegible]

Victoria.—Generally showery with strong squally westerly winds, fallen barometers, and rough sea. Showery at Robe, Ballarat, Wilson's Promontory, and [illegible] Rough sea at Robe, Cape Schanck, and Wilson's Promontory. Cape Schanck reports fierce squalls from S.W. at 9 p.m. yesterday, and from W.N.W. after midnight. Extremes of barometer and temperature: Horsham, 29·90 and 5[illegible]·; Wilson's Promontory, 29·51 and Ballarat 4·90.; Cape Otway, barometer 30·03, temperature 51·; wind W.N.W., and rather stormy and squally, showery and misty, and high sea.

Tasmania.—Generally fine but cloudy, with rather strong westerly winds; sea rough on N. and W. coasts, moderate on E. coast. Rainfall: All stations from 33 to 50 points, and still raining at South Port. Extremes of barometer: 29·35 in south, 29·54 in north.

New Zealand.—At North Island cloudy, with S. wind and calms, and barometer 30·10. On Middle Island fine, with S.E. wind, and barometer 29·9.

New South Wales.—Generally fine and clear, with light westerly winds, fallen barometers, and smooth [illegible]. Light rain fallen on western slope of main range, [illegible] due west of Sydney, but heaviest in south at K[illegible]. Very light rain fell this morning at Sydney. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·27; Gabo Island, 29·82; Clarence, 65·, and Kiandra, 29·. Extra stations: Temora, rainfall 0·19; Bundarra, max. 7[illegible], min. 40, W.N.W., and cloudy; [illegible] garell, max. 66·, min. 48·, N.W., fine, rainfall 0·[illegible]; [illegible] max. 75·, min. 40·, calm, fine, and clear. For further particulars see map.

Queensland.—Generally fine, with light S.E. winds (strong at Cooktown), and moderate sea. Rainfall: Cooktown: 0·63. Extremes of barometers and temperature: Rockhampton, 30·13; Townsville, 29·57; Brisbane, 67·0; and Cooktown, 83·0.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, S.W., 40, fierce squalls, showery, very high sea, temperature 5·7; Melbourne, W., 23, showery and gloomy, temperature 51; Lake entrance, W., 28, heavy rain, moderate sea, temperature, 56·; Portland, S.W., 48, passing showers, rough sea, temperature 53·; Wilson's Promontory, W.S.W., 56, showery, moderate sea, temperature 46·.

New South Wales.—Cape St. George, W., 42, fine, smooth sea, temperature 65·; Dubbo, S.W., 14, fine, temperature 63·; Eden, N.E., 14, fine, smooth sea, temperature 64·; Goulburn, N.W., 2[illegible], fine, temperature 58·; Menindie, S.W., 28, fine and clear, temperature 67·; Moruya, S.W., 42, fine and clear, smooth sea, temperature 62·; Newcastle, W., 28, fine, smooth sea, temperature 70·; Port Macquarie, S.W., 14, fine, smooth sea, temperature 75·; Sydney, W., 19, fine, smooth sea, temperature 68·; Wentworth, S.W., 42, like rain, temperature 58·. At 4.15 p.m., Eden reports strong S.W. gale; Walgett, S.W., fine and clear, temperature 71·.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 5 inches above summer level; at Hay, below summer level; Balranald, 3 feet below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, Pooncarie, Menindie, Wilcannia, low; at Bourke, 1 foot above summer level, and rising slowly.

ASTRONOMICAL MEMORANDA FOR MAY 11.

Sun rises at 6.43, sets at 5.9; Moon, 1.0 p.m., 11.52 p.m.; Mercury, 4.38 a.m., 4.5 p.m.; Venus, 3.3 a.m., 3.5 p.m.; Mars, 1.54 p.m., 1.6 a.m.; Jupiter, 2.39 p.m., 2.27 a.m.; Saturn, 10.16 a.m., 8·8 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison: 1.4 a.m., 1.36 p.m.

Stations	wt	M'x/min	R'fall
Albury	c	61/41	0·21
Armidale	c	58/43	0
Balranald	b	71/—	0
Bathurst	g	56/42	0
Bend'm'r	g	68/39	0
Bodalla ..	b	—/—	0·10
Bourke ..	b	71/46	0
C'md'n H	b	78/53	0
C. St. Geo.	b	68/60	0·05
Carcoar	g	53/44	0·05
Casino ..	b	83/43	0
Cassilis ..	c	61/52	0
Clarence	b	81/55	0
C'nd'b'lin	b	59/35	0
Cooma ..	n	61/29	0·07
Coonab'n	g	65/37	0
C'namble	b	—/—	—
Cowra ..	c	62/47	—
Deniliq'n	b	81/35	0·02
Dubbo ..	b	62/47	0
Eden	b	63/45	0·11
Euston ..	g	70/40	0·04
Forbes ..	b	68/43	0
Gl'n Inn's	b	58/41	0
Goulburn	b	56/36	0·01
Grafton ..	b	90/50	0
Gulgong	g	—/—	0
Gunned'h	b	70/36	0
Hay	b	68/40	0
Hill End	c	—/—	0
Inverell ..	c	67/50	0
Kiandra	n	38/27	0·01
Lismore	—	—/—	—
Maitland	b	71/51	0
Marsdens	b	64/50	0·04
Menindie	g	68/52	0
Molong ..	b	—/42	0
Moree ..	b	82/46	0
Moruya ..	b	69/43	0·05
Moss Vale	—	—/—	—
Mt. Hope	b	59/42	0
M.Victoria	c	51/37	0
Mudgee ..	c	68/42	0
M'rr'm'bh	c	63/45	0·36
M'rr'mdi	c	65/48	0
Mus'brk	b	70/54	0
Narrabri	o	70/37	0
Newcastle	b	73/56	0
Nowra ..	b	77/47	0
Orange ..	g	49/37	0
Picton ..	b	65/45	0
P. M'q'rie	b	70/45	0
P. St'ph'n	b	78/58	0
Q'nbeyan	b	56/40	0
Quirindi	b	85/41	0
Singleton	b	68/56	0
Sydney ..	b	68/54	0
Tamw'rth	g	69/49	0
Taralga ..	b	61/35	0
Taree	b	76/49	0
T'nt'rfield	b	67/39	0
Wagga ..	b	61/37	0·02
Walcha ..	g	62/40	0
Walgett ..	b	66/47	0
W'ntw'rth	g	69/37	0
Wilcannia	b	—/—	0
Wl'ng'ng	b	70/51	0
Young ..	g	73/41	0·17

SYDNEY OBSERVATORY

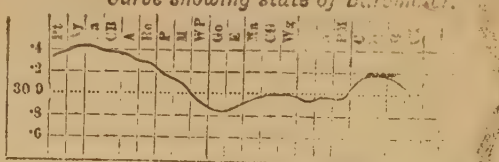
LATITUDE 33° 51′ 41″ S. LONGITUDE [illegible] 4m. 49·8s. E.

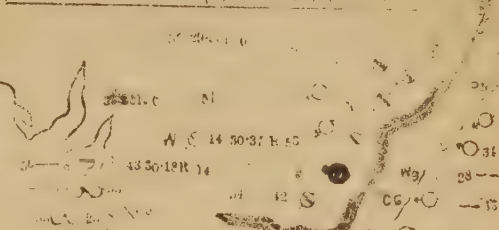
Average Annual Rainfall for 27 years [illegible] 49·80

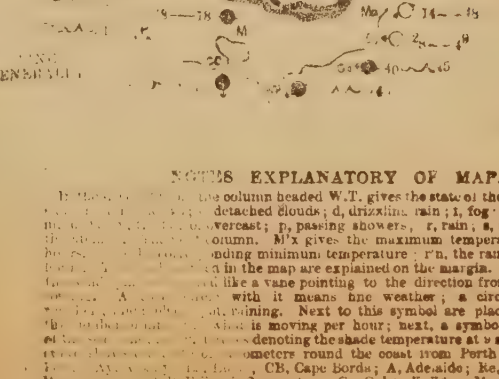
Average for 28 years from January 1st to April 30th [illegible]

Total Rainfall from January 1st to May 11th 1·26

Barometers corrected to [illegible]







Barometers on E. Coast — risen about 0·04

H. C. RUSSELL,
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the column headed W.T. gives the state of the weather at 9 a.m., b [illegible] detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; [illegible] overcast; p, passing showers; r, rain; s, snow; t, thunder; u, [illegible] column. M'x gives the maximum temperature for previous 24 [illegible] ending minimum temperature; r'n, the rain for the previous 24 [illegible] in the map are explained on the margin. At each coast station [illegible] like a vane pointing to the direction from which the wind is [illegible] with it means fine weather; a circle with bar, cloudy [illegible] raining. Next to this symbol are placed figures denoting [illegible] is moving per hour; next, a symbol showing the state [illegible] denoting the shade temperature at 9 a.m. The barometer [illegible] meters round the coast from Perth to Cooktown:—Pt, [illegible], CB, Cape Borda; A, Adelaide; Ke, Robe; P, Portland; [illegible] Promontory; Go, Gabo; E, Eden; Ma, Moruya; C Jervis [illegible] Bay; W, Newcastle; P M, Port Macquarie; C, Clarence [illegible] Hampton; Ct, Cooktown. Inland the state of barometer [illegible] is given in [illegible]bury, Deniliquin, Wentworth Menindie, Bourke, and [illegible] Springs. [illegible] curve enables one at a glance to trace the depres[illegible] beginning with Western Australia, and passing along eastwards; northerly wind[illegible] [illegible] following.

Western Australia. Generally fine with fresh easterly winds and calm and smooth sea; no rain fallen. Extremes of barometers and temperature: Esperance Bay, 30·43 and 48°; 30·90 and 85° at Carnarvon.

South Australia.—Generally cloudy, gloomy, and threatening on south coast, with rain in places. Light rain recorded inland to Quorn, but scattered; heaviest at Riverton, 45 points. Winds rather strong and squally from S. and S.W. Seas rough. Streaky Bay, Port Lincoln, Wallaroo, Adelaide, Cape Borda, M'Donnell Bay, and Robe report rain from 3 to 14 points. Inland and in Northern Territory, cloudy, with S.E. and S. winds. Rainfall at Port Darwin, 1·25. Extremes of barometers and temperature: Alice Springs 30·49, Port Darwin 29·90 and 82°, and M'Donnell Bay 50°.

Victoria.—Generally showery with strong squally S.W. and W. winds, and rough sea. Wilson's Promontory reports hailstorm during night. The whole of the coast stations report rain from from 22 to 83 points. Extremes of barometers and temperature: Horsham, 30·21 and 54°; Wilson's Promontory, 29·87 and 46°.

Tasmania.—Generally fine in north, showery in south, with strong S.W. winds and rough sea. Rainfall: Low Head, 0·03; Hobart, 0·17; Southport, 0·80, and hailstorm. Extremes of barometers and temperature: 29·90 at Circular Heads, 29·60 at Falmouth, 45° generally.

New Zealand.—Generally fine but [illegible], with light and calm. Extremes of barometers: 29·9 in north, 29·7 in south.

New South Wales.—North of Sydney generally fine and cool, with light westerly winds, fallen barometers, and smooth sea. South of Sydney, cloudy in western parts; light rain fallen in central and eastern divisions; risen barometers, strong west and S.W. winds, and moderate to rough sea. Rain heaviest at Kiandra (nearly an inch); little snow also fell, with heavy frost and fog. Cabbage Island reports over half an inch of rain, squally west wind, and rough sea. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·37; Bourke, 29·93; Newcastle, 68°; [illegible] Kiandra, 28°. Extra stations: Temora, 11 points of rain, weather very cold; Bundarra, max. 71°, min. 40°, calm and cloudy; Morangarell, max. 64°, min. 46°, N.W. wind and fine, rainfall 0·05; Warrah, max. 69°, min. 43°, calm, and dull. [illegible] further particulars see map.)

Queensland.—Generally fine, with risen barometers and moderate sea. In north, S.E. winds and calm; in south, south and S.W. winds. Extremes of barometers and temperature: Brisbane, 30·19; Townsville, 29·82; Cooktown, 89°; [illegible] Marceton, 62°.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, N., 23, passing showers, moderate, high sea, temperature 56°; Melbourne, W.S.W., 18, fine and cloudy and squally, temperature 51°; Cape Otway, W.N.W., 18, squally and misty, high sea, temperature 50°; [illegible] S.W., 28, showery and squally, rough sea, temperature 51°; Portland, S.W., 34, passing showers, moderate sea, temperature 51°; Wilson's Promontory, S.W., 40, showery and squally, rough sea, temperature 47°.

New South Wales.—Cape St. George, W., 58, fine, smooth sea, temperature 60°; Clarence River, N.E., 14, fine, smooth sea, temperature 72°; Deniliquin, W., dull, temperature 61°; Dubbo, S., 28, fine and cold, temperature 60°; Eden, W.S.W., 28, fine, smooth sea, temperature 54°; Goulburn, N.W., 28, fine, temperature 53°; Menindie, S.W., cloudy and dull, temperature 63°; Moruya, S.W., 42, fine, smooth sea, temperature 60°; Newcastle, S.W., 28, fine, smooth sea, temperature 67°; Port Macquarie, S.W., 28, fine, smooth sea, temperature 71°; Sydney, W.S.W., 26, fine and squally, smooth sea, temperature 68°; Wentworth, S.W., 14, cold and like rain, temperature 55°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 5 inches above summer level; at Hay, below summer level; Balranald, 3 feet below summer level. Murray: At Albury, low; at Euston, low. Darling: At Wentworth, Pooncarie, Menindie, Wilcannia, low; at Bourke, 2 feet above summer level, and rising slowly.

ASTRONOMICAL MEMORANDA FOR MAY 12.

Sun rises at 6.41, sets at 5.3; Moon, 1.42 p.m., —; Mercury, 4.40 a.m., 4.4 p.m.; Venus, 3.4 a.m., 3.4 p.m.; Mars, 1.51 p.m., 1.3 a.m.; Jupiter, 2.35 p.m., 2.23 a.m.; Saturn, 10.12 a.m., 8.4 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison, May 12: 2.7 a.m., 2.45 p.m.

Balranald	b	63 —	0
Bathurst	b	51 33	0
Bend'm'r	b	63 33	0
Bodalla ..	b	— —	0
Bourke ..	b	79 40	0
C'ndn H	b	70 49	0
C. St. Geo.	b	61 —	0
Carcoar .	b	48 39	0
Casino ..	b	79 39	0
Cassilis .	b	57 41	0
Clarence	b	74 53	0
C'nd'b'lin	b	58 35	0
Cooma ..	n	57 32	0·06
Coonab'n	b	62 36	0
C'nam ble	b	— —	0
Cowra ..	b	59 40	0
Deniliq'n	b	70 32	0
Dubbo ..	c	63 46	0
Eden	b	60 45	0
Euston ..	b	65 38	0
Forbes ..	b	53 37	0
Gl'n Inn's	b	73 31	0
Goulburn	b	49 31	0
Grafton ..	b	85 44	0
Gulgong	b	64 50	0
Gunned'h	b	66 40	0
Hay	b	61 31	0
Hill End	b	— —	0
Inverell ..	b	62 35	0
Kiandra	n	40 24	0
Lismore	b	82 48	0
Maitland	b	65 45	0
Marsdens	n	61 37	0
Menindie	b	67 43	0
Molong ..	n	63 33	0
Moree ..	b	71 41	0
Moruya ..	b	64 —	0
Moss Vale	—	— —	—
Mt. Hope	b	51 47	0
M. Vict'ria	b	47 30	0
Mudgee ..	b	68 33	0
M'rr'm'bh	b	56 37	0
M'rr'r'ndi	b	60 39	0
Mus'b'r'k	b	68 37	0
Narrabri	b	68 37	0
Newcastle	b	69 45	0
Nowra ..	b	67 41	0
Orange ..	b	45 32	0
Picton ..	b	58 44	0
P. M'q'rie	b	71 42	0
P. St'ph'n	c	77 55	0
Q'nbeyan	b	53 33	0
Quirindi	b	85 32	0
Singleton	b	58 47	0
Sydney ..	b	59 46	0
Tamw'rth	—	— —	—
Taralga ..	n	59 30	0
Taree	b	73 45	0
T'nt'rfield	b	62 33	0
Wagga ..	b	57 30	0
Walcha ..	b	56 32	0
Walgett ..	b	66 42	0
W'ntw'rth	b	60 43	0
Wilcannia	b	— —	0
W'll'ng'ng	b	62 47	0
Young ..	n	71 32	0

Average Annual Rainfall for 27 years..... 49·26
Average for 28 years from Jan. 1st to April 30th 20·263
Total Rainfall from January 1st to May 12th 12·26
Barometers corrected to 32° Fah. and Mean Sea Level

If it is CALM, the symbol is used without the arrow.
Smooth sea
Hoary sea.
Very heavy sea.

Curve showing state of Barometer.

TIME BALL
Dropsat 1 p.m. S.M.T
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35' 37" E

Barometers on E. Coast — risen about 0·1.

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b storming for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, thunderstorm. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; A., Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory, Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle, P M, Port Macquarie; C, Clarence River, B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given by figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—On south coast cloudy, gloomy, and threatening rain, and showery at Adelaide and Robe; inland fine to Alice Springs, and in Northern Territory cloudy. Generally fresh winds, from S.E. to S.W. Fallen temperature, risen barometers, and on coast moderate sea. Rainfall, Robe, 0.02. Extremes of barometers and temperature: South of Alice Springs, from 30·40 to 30.50: in extreme north, 29·91 and 75; at Adelaide, 53.

Victoria.—Generally cloudy, gloomy and threatening, with fresh W. and S.W. winds, and rough sea. Showery at Cape Otway, Ballarat, Cape Schanck, and Omeo. The last place reports snow on surrounding hills. Rainfall generally from 6 to 17 points. Extremes of barometers and temperature: Horsham, 30·35; Wilson's Promontory, 30·10 and 63°; and Lakes Entrance, 49°

Tasmania.—Generally cloudy and unsettled, with fresh westerly winds and moderate sea Rainfall: Hobart, 0·10; Circular Head, 0·05, and still raining at 9 a.m. Extremes of barometers and temperature: Circular Head, 30·07 and 51°; 29·88 at Southport; and 44° at Falmouth.

New Zealand.—On North Island, cloudy, with N.E. wind and calm; in extreme south of Middle Island heavy showers from S.W. Barometers: 29·7 in north, and 29·4 in extreme south.

New South Wales.—Generally fine and clear, with fresh south and south-west winds, rising barometers, and moderate sea; temperature fallen generally, heavy frosts on mountains, half-an-inch of snow at Kiandra. Cooma and Albury in south are the only places reporting rain. Gabo Island reports: Heavy showers, squally with hail, and very strong S.W. wind and rough sea. Extremes of barometers and temperature at 9 a.m; Menindie, 30·50; Eden, 30·08; Clarence and Newcastle, 56°; and Mount Victoria, 33°. Extra stations: Tamworth, max. 61°, min. 33°, and fine and fresh W. wind; Bundarra, max. 68°, min. 35°, calm, fine, and cold; Morangarell, max. 57°, min. 41°, calm, fine, severe frost; Warrah, max. 65°, min. 36°, calm, clear, and cool. (For further particulars see map.)

Queensland.—Generally fine and clear, light variable wind (Cooktown strong S.E. wind), and moderate sea. No rain fallen. Extremes of barometers and temperature, 30·12 and 61° in south; 29·79 at Townsville; and 88° at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, S.W., 23, showery and misty, rough sea, temperature 57°; Melbourne, W., 18, misty, rain, and gloomy, temperature 58°; Cape Otway, W., 18, misty, rain, and foggy, rough, sea, temperature 56°; Lakes Entrance, N.W., 23, fine but cloudy, rough sea but moderating, temperature 53°; Portland, W.S.W., 34, passing showers and squally, smooth, temperature 56°; Wilson's Promontory, W., 28, cloudy, misty, squally, moderate sea, temperature 56°.

New South Wales.—Cape St. George, S.S.W., 42, fresh, smooth sea, temperature 57°; Clarence River, S., 28, fine, moderate sea, temperature 62°; Deniliquin calm, fine, temperature 56°; Dubbo, S.W., 14, fine, temperature 57°; Eden, S.W., 28, fine and light E. sea, temperature 57°; Goulburn, W., 14, fine, temperature 55°; Menindie, S.W., 14, fine and clear, temperature 63°; Moruya, S.W., 28, fine, moderate sea, temperature 62°; Newcastle, S.W., 28, fine, heavy sea, temperature 65°; Port Macquarie, S.S.W., 42, fine, smooth sea, temperature 63°; Sydney, S.S.E., 12, fine and clear smooth sea, temperature 58°; Wentworth, S.W., 28, dull, temperature 59°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, below summer level; Balranald, 3 feet below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, Pooncarie, Menindie, Wilcannia, low.

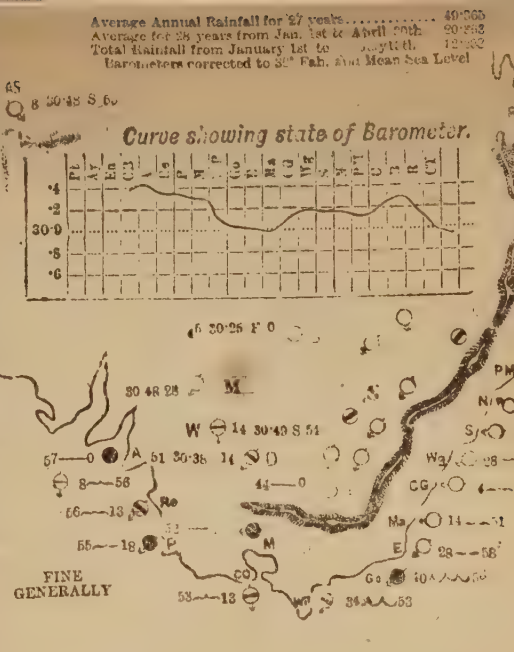
ASTRONOMICAL MEMORANDA FOR MAY 13.

Sun rises at 6.45, sets at 5.8; Moon, 2.22 p.m., 12.56 a.m.; Mercury, 4.40 a.m., 4.3 p.m.; Venus, 3.5 a.m., 3.3 p.m.; Mars, 1.48 p.m., 1 a.m.; Jupiter, 2.31 p.m., 2.19 a.m.; Saturn, 10.9 a.m., 8 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison: 3.22 a.m., 4.1 p.m.

Balranald	b	73 —	0
Bathurst	g	53 33	0
Bend'm'r	n	55 24	0
Bedulla ..	b	— 32	0
Bourke ..	b	71 39	0
C'nde'n R	b	66 42	0
C. St. Geo.	b	61 —	0
Carcoar ..	g	82 39	0
Cooma ..	b	71 35	0
Cassilis ..	b	55 39	0
Clarence	b	71 47	0
C'nd'b'lin	g	67 31	0
Cooma ..	n	57 25	0
Coonab'n	b	53 38	0
C'nam ble	b	— —	0
Cowra ..	b	57 43	0
Deniliq'n	g	69 37	0
Dubbo ..	—	— —	-
Eden	b	58 49	0
Euston ..	r	68 40	0
Forbes ..	b	64 40	0
Gl'n Inn's	b	53 31	0
Goulburn	b	55 38	0
Grafton ..	h	76 40	0
Gulgong	b	68 55	0
Gunned'h	h	65 39	0
Hay	b	63 44	0
Hill End	c	— —	0
Inverell ..	c	58 39	0
Kiandra	c	47 31	0
Lismore	b	72 41	0
Maitland	b	61 40	0
Marsdens	c	61 45	0
Menindie	b	64 51	0
Molong ..	g	60 38	0
Moree ..	b	70 39	0
Moruya ..	b	64 44	0
Moss Vale	b	51 40	0
Mt. Hope	g	53 48	0
M. Vict'ria	b	51 34	0
Mudgee ..	b	72 31	0
M'rr'm'bh	c	70 39	0
M'rr'ndi	b	60 36	0
Mus'br'k	b	63 38	0
Narrabri	b	62 29	0
Newcastle	b	67 45	0
Nowra ..	-	— —	-
Orange ..	g	40 34	0
Picton ..	b	54 42	0
P. M'q'rie	b	63 38	0
P. St'ph'n	b	76 56	0
Pabeyan	b	53 34	0
Quirindi	b	84 30	0
Singleton	b	54 46	0
SYDNEY ..	h	59 49	0
Tamw'rth	-	— —	-
Taralga ..	b	65 35	0
Taree	b	61 41	0
Tnt'rfield	b	62 28	0
Wagga ..	b	58 40	0
Walcha ..	n	52 28	0
Walgett ..	b	60 40	0
W'naw'rin	g	63 48	0
Wilcannia	b	— —	0
W'll'ng'ng	b	75 50	0
Young ..	b	75 38	0

Average Annual Rainfall for 27 years ..... 49·065
Average for 28 years from Jan. 1st to April 30th 20·252
Total Rainfall from January 1st to [illegible] 12·332
Barometers corrected to 32° Fah. And Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Generally fine, but cloudy south of Georgetown, gloomy and threatening in places, and raining at Adelaide and M'Donnell Bay. In central parts fine, and in Northern Territory cloudy. Winds generally light southerly, and sea moderate. Rainfall: Robe, 0·12. Extremes of barometers and temperature: Alice Springs, 30·48; Port Darwin, 29·87 and 75°; and M'Donnell Bay, 53°.

Victoria.—Generally raining and overcast, with fresh W. and S.W. winds; sea moderate on S.W., and rough on S.E. coast; squally and misty along coast. Passing showers of misty rain at Cape Schank, Ballarat, Melbourne, Hamilton, Portland, and Lakes Entrance. Rainfall: Generally from 2 to 23 points. Extremes of barometers and temperature: Melbourne, 30·31 and 52°; Wilson's Promontory, 30·10; and Horsham, 58°.

Tasmania.—Generally fine, but cloudy, with light southerly winds and calms, and moderate sea. Rainfall: Circular Head, 0·02; Hobart, 0·07; and Southport, 0·15, with misty rain at 9 a.m. Extremes of barometers and temperature: Circular Head, 30·18 and 48°; Southport, 30·13; and Hobart, 42°.

New Zealand.—On North Island, heavy rain at Russell and Wellington, with S.W. and N.W. winds: on Middle Island, fine, but cloudy, with N.E. winds. Barometers: In North, 29·40 and 50.; in South, 29·60.

New South Wales.—Generally fine and clear, with light, cold, westerly winds, slightly rising barometers, and moderate sea. In central parts, near mountains, cloudy and threatening rain; and at Euston it was raining slightly at 9 a.m. Gabo Island reports: Strong S.W. wind, misty rain, rough sea, and rainfall 0·12. Extremes of barometers and temperature at 9 a.m: Wentworth, 30·49; Port Macquarie, 30·09; Eden, 53°; and Cooma, 32°. Extra stations: Bundarra, max. 65°, min. 31°, calm, fine, and cold; Morangarell, max. 59°, min. 45°, S.W. wind, and fine; Warrah, max. 66°, min. 33°, calm, fine, and clear. (For further particulars see map.)

Queensland.—Generally fine, with light S.E. to S.W. winds and moderate sea. Cooktown, strong S.E. wind; Cape Moreton rough sea. Extremes of barometers and temperature: Brisbane, 30·25 and 56°; Townsville, 29·96; and Cooktown, 68°. No rain fallen.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, S., 13, cloudy and misty, moderate sea, temperature 58°; Melbourne, S.W., 15, fine, but cloudy, temperature 56°; Cape Otway, S.W., 8, cloudy and misty, moderate sea, temperature 56°; Lakes Entrance, W., 23, passing showers, rough sea, temperature 58°; Portland, S.W., 18, passing showers, smooth sea, temperature 57°; Wilson's Promontory, S.W., 34, cloudy and squally, rough sea, temperature 54°.

New South Wales.—Cape St. George, S.S.W., 28, fine, smooth sea, temperature 63°; Clarence River, S.E., fine, smooth sea, temperature 68°; Deniliquin, calm, fine, temperature 61°; Dubbo, S.W., 14, fine, temperature 58°; Eden, S.W., 28, fine, smooth sea, temperature 60°; Goulburn, calm, fine, temperature 59°; Moruya, S., 42, fine, smooth sea, temperature 65°; Newcastle, S.W., 14, fine, heavy sea, temperature 66°; Port Macquarie, S., 28, fine, smooth sea, temperature 67°; Sydney, S., 14, fine, but hazy, smooth sea, temperature 63°; Wentworth, S., 28, dull and like rain, temperature 58°; Walgett, S.W., dull, like change, temperature 64°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, below summer level; at Balranald, 3 feet below summer level. Murray: At Albury, summer level; at Euston, low level. Darling: At Wentworth, low; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, 6 inches, falling.

ASTRONOMICAL MEMORANDA FOR MAY 14.

Sun rises at 6.46, sets at 5.7; Moon, 3.3 p.m., 2.0 a.m.; Mercury, 4.43 a.m., 4.3 p.m.; Venus, 3.6 a.m., 3.2 p.m.; Mars, 1.44 p.m., 12.58 a.m.; Jupiter, 2.26 p.m., 2.14 a.m.; Saturn, 10.5 a.m., 7.57 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison: 4.40 a.m., 5.15 p.m.

Armidale	n	54	35	0
Balranald	b	74	—	0
Bathurst	b	61	30	0
Bend'm'r	n	57	29	0
Bodalla ..	b	—	33	0
Bourke ..	b	79	44	0
C'md'n H	g	68	46	0
C. St. Geo.	c	68	64	0
Carcoar ..	—	—	—	—
Casino ..	b	74	30	0
Cassilis ..	b	60	36	0
Clarence	b	71	47	0
C'nd'b'lin	b	60	36	0
Cooma ..	c	60	35	0
Coonab'n	n	66	30	0
C'nam ble	b	—	—	0
Cowra ..	b	59	44	0
Deniliq'n	b	71	35	0
Dubbo ..	—	—	—	—
Eden	b	61	54	0
Euston ..	b	67	28	0
Forbes ..	b	58	35	0
Gl'n Inn's	b	65	39	0
Goulburn	f	62	28	0
Grafton ..	b	76	43	0
Gulgong	b	64	52	0
Gunned'h	b	64	42	0
Hay	b	66	38	0
Hill End	b	—	—	0
Inverell ..	b	63	30	0
Kiandra	n	53	21	0
Lismore	b	74	41	0
Maitland	b	63	49	0
Marsdens	n	65	42	0
Menindie	b	63	44	0
Molong ..	—	—	—	—
Moree ..	b	74	41	0
Moruya ..	b	71	45	0
Moss Vale	f	56	41	0
Mt. Hope	b	51	43	0
M. Vict'ria	b	55	35	0
Mudgee ..	b	76	30	0
M'rr'm'bh	b	80	36	0
M'rr'r'ndi	b	57	37	0
Mus'br'k	b	67	37	0
Narrabri	b	67	35	0
Newcastle	b	70	53	0
Nowra ..	h	69	43	0
Orange ..	c	50	31	0
Picton ..	b	66	57	0
P. M'q'rie	c	67	47	0
P. St'ph'n	r	77	55	0·12
Q'nbeyan	b	57	36	0
Quirindi	b	85	41	0
Singleton	b	69	44	0
SYDNEY ..	b	64	51	0
Tamw'rth	b	63	26	0
Taralga ..	f	69	30	0
Taree	b	69	47	0
T'nt'rfield	b	67	32	0
Wagga ..	b	64	34	0
Walcha ..	o	63	33	0
Walgett ..	b	65	40	0
W'ntw'rth	b	64	36	0
Wilcannia	b	—	—	0
W'll'ng'ng	g	71	53	0
Young ..	n	80	35	0

Average Annual Rainfall for 27 years ..... 49·65
Average for 28 years from Jan. 1st to April 30th 20·33
Total Rainfall from January 1st to May 14th. 12·08
Barometers corrected to 32° Fah. and Mean Sea Level

LATITUDES 33° 51' 41" S. LONGITUDES 151° 13' 45" E.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; l, fog; g, gloomy; h, hazy; m, misty; r, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder, q, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle. P M, Port Macquarie; C, Clarence River B. Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given by figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On 12th, generally fine, with light E. and S.E. winds. Rough sea off Cossack. 13th, generally fine, with W. and E. winds, and barometer fallen about two-tenths. 14th, generally cloudy, gloomy, and threatening, with E. and N.E. winds in North, and fresh N.W. winds, and moderate sea on South Coast. Rainfall: Perth, 0·22, and Albany, 0·32. Extremes of barometer and temperature: 30·09 at Geraldton, 29·73 at Albany, 65° at Esperance Bay, and 84° at Carnarvon.

South Australia.—On South coast, fine, with light northerly winds, high barometers, and moderate sea. Inland, fine, and in Northern territory, cloudy and gloomy, with S.E. winds and calm. Rainfall: One point at Adelaide. Extremes of barometers and temperature: Alice Springs, 30·46 and 51°; Port Darwin, 29·98 and 74°.

Victoria.—Generally fine but cloudy, with misty rain at Cape Schanck and Wilson's Promontory. light westerly winds and high barometers. Sea generally moderate, rough off Lakes Entrance. Rainfall: Ballarat, 0·17; Capes Schanck and Otway, 0·03 and 0.11.; Melbourne, 0·02. Extremes of barometers and temperature: Melbourne, 30·39; Wilson's Promontory, 30·26; Portland 43°, and Horsham, 56°.

New Zealand.—Generally gloomy and cloudy, with S.E. winds, and low barometer. Wellington reports 3·4 inches rain. Barometers: Wellington, 29.3; in North, 29·5, and in South, 29·8.

Tasmania.—Generally fine, but cloudy, with light westerly winds and smooth sea. No rain fallen. Extremes of barometers and temperature: In North, 30·25 and 54°; in South, 30·14; and at Falmouth, 44.

New South Wales.—Generally fine and cold, with heavy dew, fog, and clouds in places scattered over the colony. Winds generally high from W., S.W., and S., high barometer and moderate sea. Port Stephens and Gabo Island reports: Rainfall, 12 and 17 points respectively, and at both places it was still raining at 9 a.m., with fresh S.W. and W. winds. Camden Haven reports heavy sea; places on and near mountains, heavy frosts. Extremes of barometers and temperature at 9 a.m: Wentworth, 30·46; Port Macquarie, 30·19; Newcastle, 62°; and Goulbourn, 34°. Extra stations: Bundarra, max. 68°, min. 34°, calm, fine, and cold; Morangarell, max. 62°, min. 36°, fine and frosty; Warrah, max. 67°, min. 40°, calm and fine. (For further particulars see map.)

Queensland.—Generally fine, with light southerly winds and moderate sea. Cooktown, strong S.E. wind and rough sea; Rockhampton, cloudy. Extremes of barometers and temperature: Brisbane, 30·27; Townsville, 29·85; Rockhampton, 61°; and Cooktown, 89°.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, W., 13, cloudy and gloomy, smooth sea, temperature 57°; Melbourne, W., 8, cloudy and gloomy, temperature 55°; Cape Otway, W., 8, cloudy and hazy, moderate sea, temperature 56°; Lakes Entrance, W.S.W., 13, fine but cloudy, moderate sea, temperature 60°; Portland, E., 8, fine, smooth sea, temperature 59°; Wilson's Promontory, W., 13, misty rain and squally, moderate sea, temperature 55°.

New South Wales.—Cape St. George, S.S.W., 42, cloudy, moderate sea, temperature 66°; Clarence River, S., fine, moderate sea, temperature 68°; Deniliquin, S.W., fine, temperature 61°; Dubbo, calm, fine, temperature 61°; Goulburn, calm, fine, temperature 58°; Menindie, N.W., fine, temperature 61; Moruya, E., 28, fine, smooth sea, temperature 66°; Newcastle, S., 14, dull, moderate sea, temperature 64°; Port Macquarie, S., 28, showery, smooth sea, temperature 66°; Sydney, S., 13, cloudy and gloomy, smooth sea, temperature 62°; Wentworth, N.W., fine, temperature 58°; Walgett, S.E., fine, temperature 69°.

STATE OF RIVERS.

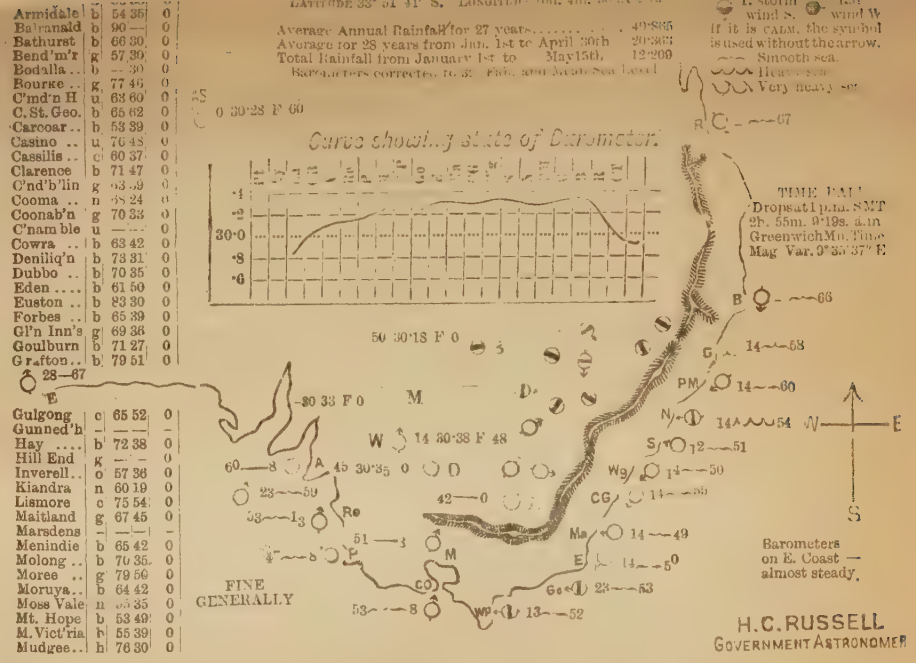
Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, below summer level. Murray: At Albury, summer level; at Euston, low. Darling: At Wentworth, low; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, 2 feet, falling.

ASTRONOMICAL MEMORANDA FOR MAY 15.

Sun rises at 6.46, sets at 5.6; Moon, 3.39 p.m., 3.1 a.m.; Mercury, 4.46 a.m., 4.3 p.m.; Venus, 3.7 a.m., 3.1 p.m.; Mars, 1.41 p.m., 12.55 a.m.; Jupiter, 2.22 p.m., 2.10 a.m.; Saturn, 10.2 a.m., 7.54 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison: 5.49 a.m., 6.18 p.m.

Armidale	b	54 35	0	
Balranald	b	90 —	0	
Bathurst	b	66 30	0	
Bend'm'r	g	57 30	0	
Bodalla ..	b	— —	0	
Bourke ..	g	77 46	0	
C'md'n H	u	63 60	0	
C.St. Geo.	b	65 62	0	
Carcoar ..	b	53 39	0	
Casino ..	u	76 48	0	
Cassilis ..	c	60 37	0	
Clarence	b	71 47	0	
C'nd'b'lin	g	63 59	0	
Cooma ..	n	58 24	0	
Coonab'n	g	70 33	0	
C'namble	u	— —	0	
Cowra ..	b	63 42	0	
Deniliq'n	b	73 31	0	
Dubbo ..	b	70 35	0	
Eden	b	61 50	0	
Euston ..	b	83 30	0	
Forbes ..	b	65 39	0	
Gl'n Inn's	g	69 36	0	
Goulburn	b	71 27	0	
Grafton ..	b	79 51	0	
Gulgong	c	65 52	0	
Gunned'h	–	— —	–	
Hay	b	72 38	0	
Hill End	g	— —	–	
Inverell ..	o	57 36	0	
Kiandra	n	60 19	0	
Lismore	c	75 54	0	
Maitland	g	67 45	0	
Marsdens	–	— —	–	
Menindie	b	65 42	0	
Molong ..	b	70 35	0	
Moree ..	g	79 56	0	
Moruya ..	b	64 42	0	
Moss Vale	n	55 35	0	
Mt. Hope	b	53 49	0	
M.Vict'ria	b	55 39	0	
Mudgee ..	b	76 30	0	
M'rr'm'bh	b	84 36	0	
M'rr'r'ndi	n	59 38	0	
Mus'lbr'k	b	68 35	0	
Narrabri	o	69 42	0	
Newcastle	g	69 53	0	
Nowra ..	–	— —	–	
Orange ..	g	56 31	0	
Picton ..	n	62 33	0	
P. M'q'rie	b	67 53	0	
P. St'ph'n	r	78 57	0·25	
Q'nbeyan	b	58 37	0	
Quirindi	b	84 44	0	
Singleton	b	65 43	0	
Sydney ..	b	63 48	0	
Tamw'rth	–	— —	–	
Taralga ..	n	75 32	0	
Taree	g	67 57	0·01	
T'nt'rfield	o	64 34	0	
Wagga ..	b	66 34	0	
Walcha ..	g	63 28	0	
Walgett ..	g	69 48	0	
W'ntw'rth	b	72 40	0	
Wilcannia	c	— —	0	
W'll'ng'ng	b	68 46	0	
Young ..	n	86 36	0	



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind vane symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—On south coast generally fine and cold, with light W. and N.E. winds, fallen barometers, and moderate sea; foggy and cloudy in places. Inland and in Northern Territory.—Fine, with E. and S.E. winds and calms. Extremes of barometers and temperature: Alice Springs, 30·28; Port Darwin, 29·89 and 74°; Robe, 53°. No rain fallen.

Victoria.—Generally fine and cold, with light winds from W. to N., high and almost steady barometers, and smooth sea; hoar frost last night at Melbourne, Ballarat, Omeo, and Lakes Entrance; heavy dew along coast, and one point of rain at Wilson's Promontory. Extremes of barometers and temperature: Omeo, 30·30 and 38°; Portland, 30·18; and Cape Schanck, 55°.

Tasmania.—Generally fine, with light variable winds and calm, and smooth sea; foggy at Low Heads, but no rain fallen. Extremes of barometers and temperature: Low Heads, 30·22 and 39°; Falmouth, 30·14 and 49°.

New Zealand.—Generally gloomy, with variable winds. Timaru reports strong S.W. wind, rough sea, and showery weather. Rainfall at Wellington, 0·16. Barometers; in North, 29·5, and in South, 29·4.

New South Wales.—Generally fine and cold, with light variable winds and calms, high and almost steady barometers, and moderate sea. Port Stephens and Taree reports 25 and 1 points rain respectively, and at the former place it was still raining at 9 a.m.; north of Sydney cloudy, gloomy, and threatening weather is reported from 16 stations scattered over the colony from the sea to the Darling, but principally beyond the mountains N.W. of Sydney. Newcastle reports rough sea. Extremes of barometers and temperature at 9 a.m: Armidale, 30·40; Forbes, 30·12; Port Macquarie, 60°; and Cooma, 31°. Extra stations: Marsden, calm, fine, max. 60°, min. 41·2; Bundarra, max. 58°, min. 36°, calm and cloudy; Morangarell, S. wind, cloudy, max. 66°, min. 37°; Warrah, max. 68°, min. 39°, calm, fine, and clear. (For fur particulars see map.)

Queensland.—Generally fine, with light S. and S.E. winds and moderate sea. Strong S.E. winds at Cooktown. Threatening rain at Townsville. Extremes of barometers and temperature: Brisbane, 30·31; Townsville, 29·85; Cooktown, 89°; and Cape Moreton, 63°. No rain fallen.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, barometers falling; Cape Otway, E.N.E., 6, fine, smooth sea, temperature 64°; Portland, N., 18, fine, smooth sea, temperature 63°; Wilson's Promontory, N.E., 12, fine, smooth sea, temperature 63°.

New South Wales.—Cape St. George, N., 14, fine, smooth sea, temperature 65°; Clarence River, S., 20, fine, moderate sea, temperature 70°; Deniliquin, calm, fine, temperature 68°; Dubbo, calm, cloudy, temperature 70°; Eden, N.E., 14, fine, smooth sea, temperature 59°; Goulburn, calm, fine, temperature 60°; Menindie, S.W., 14, fine, temperature 62°; Moruya, E.S.E., 14 fine, smooth sea, temperature 61°; Newcastle, N.W., 10, fine moderate sea, temperature 68°; Port Macquarie, S., 14, cloudy smooth sea, temperature 71°; Sydney, N.E., 10, fine, smooth sea temperature 64°; Wentworth, N., 14, clear, fine, temperature 61°.

STATE OF RIVERS.

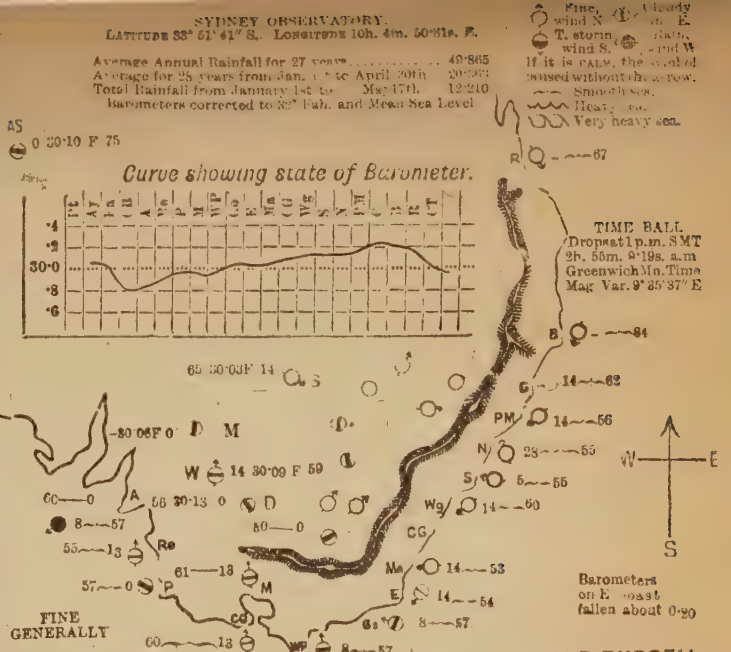
Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, below summer level. Murray: At Albury, summer level; at Euston, low. Darling: At Wentworth, low; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 17.

Sun rises at 6.48, sets at 5.4; Moon, 4.59 p.m., 5.9 a.m.; Mercury, 4.52 a.m., 4.3 p.m.; Venus, 3.9 a.m., 2.59 p.m.; Mars, 1.35 p.m., 12.50 a.m.; Jupiter, 2.14 p.m., 2.2 a.m.; Saturn, 9.55 a..m., 7.47 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison: 7.35 a.m., 7.57 p.m.

Stations.	wt	Mx.	sn	in
Albury	c	66	41	0
Armidale	b	67	40	0
Balranald	g	83	—	0
Bathurst	b	66	24	0
Rend'm'r	g	65	35	0
Bodalla ..	..	—	—	–
Bourke ..	b	80	56	0
C'nd'n H	b	71	53	0
C.St. Geo.	–	—	—	–
Carcoar ..	b	57	41	0
Casino ..	b	82	46	0
Cassilis ..	c	66	42	0
Clarence	b	78	58	0
C'nd'b'lin	–	—	—	–
Cooma ..	c	77	38	0
Coonab'n	b	76	36	0
C'nam ble	g	64	40	0
Cowra ..	b	61	40	0
Deniliq'n	g	76	35	0
Dubbo ..	b	69	41	0
Eden	u	62	50	0
Euston ..	g	82	54	0
Forbes ..	c	67	41	0
Gl'n Inn's	b	75	42	0
Goulburn	b	72	37	0
Grafton ..	f	71	50	0
Gulgong	b	64	51	0
Gunned'h	b	69	45	0
Hay	k	74	54	0
Hill End	g	—	—	–
Inverell..	b	69	39	0
Kiandra	c	63	25	0
Lismore	b	85	53	0
Maitland	g	68	42	0
Marsdens	c	68	44	0
Menindie	c	68	57	0
Molong ..	b	62	42	0
Moree ..	b	82	49	0
Moruya..	b	68	47	0
Moss Vale	b	64	34	0
Mt. Hope	g	87	49	0
M. Vict'ria	b	68	45	0
Mudgee...	b	74	33	0
M'rr'm'bh	b	83	42	0
M'rr'ndi	g	66	41	0
Mus'br'k	b	74	43	0
Narrabri	b	69	43	0
Newcastle	b	72	52	0
Nowra ..	–	—	—	–
Orange ..	b	59	39	0
Picton ..	f	68	41	0
P. M'q'rie	b	70	43	0
P. St'ph'n	b	81	65	0
Q'beyan	b	62	39	0
Quirindi	b	84	51	0
Singleton	b	68	43	0
SYDNEY ..	b	68	54	0
Tam'w'rth	h	72	40	0
Taralga ..	b	74	33	0
Taree	b	75	45	0
Tat'rfield	b	74	36	0
Wagga ..	b	70	37	0
Walcha ..	g	67	35	0
Walgett ..	b	66	50	0
W'ntw'rth	g	71	56	0
Wilcannia	b	—	—	0
W'll'ag'ng	b	77	52	0
Young ..	c	82	43	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; t, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the 15th, generally cloudy and threatening on south and west coasts, with fresh westerly winds, low barometers, and moderate sea. Showery at Albany, and barometer 29·68. Every indication of a barometric depression to south of Western Australia. 17th, on south coast showery, gloomy, and squally from west, with rough sea.

South Australia.—Generally cloudy, gloomy, and threatening, with light rain about Adelaide, light northerly winds and calms, fallen barometers, and moderate sea. Extremes of barometers and temperature: Alice Springs, 30·10; Cape Borda, 29·80, with centre barometric depression, apparently to south; Daly Waters, 82°; and MacDonnell Bay, 52°.

Victoria.—Generally cloudy, gloomy, and threatening, with light northerly winds, fallen barometers, and smooth sea. Extremes of barometers and temperature: Lake Entrance, 29·99 and 51°; Hamilton, 29·84; and Cape Schanck, 59°; hazy and misty along the coast, but no rain fallen.

Tasmania.—Generally gloomy and threatening, with light east and south winds and moderate sea. Extremes of barometers and temperature: Low Heads, 29·96: Southport, 29·81; Circular Heads, 57°; and Hobart, 45°.

New Zealand.—On East Coast south gale and rain; winds from 28 to 34 miles per hour, and squally. Extremes of barometers: 29·7 in North, and 29·9 in South.

Queensland.—Generally fine, with light southerly winds, fallen barometers, and moderate sea (rough sea off Cooktown). Extremes of barometers and temperature: Brisbane, 30·18 and 64°; Townsville, 29·64; and Cooktown, 88°. No rain fallen.

New South Wales.—Generally fine with light W. to N.W. winds, fallen barometers, and smooth sea; no rain fallen, cloudy and threatening in places along the main range, and in south from the sea along the Murrumbidgee and Murray rivers to Wentworth, and Menindie in west. Hay reports: Few drops rain early this morning. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·20; Eden, 29·28; Bourke, 65°; and Cooma, 39°. Extra stations: Bundarra, max. 73°, min. 38°, calm and cloudy; Morangarell, max. 66°, min. 44°, W. wind and fine; Warrah, max. 69°, min. 43°, calm, fine, and clear. (For further particulars see map.)

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, N.W., 28, cloudy and misty, moderate sea, temperature 61°; Melbourne, S.W., 18, cloudy and gloomy, smooth sea, temperature 65°; Cape Otway, N.W., 13, gloomy, smooth sea, temperature 63°; Lakes Entrance, N.W., 13, gloomy, smooth sea, temperature 60°; Portland, N., 13, cloudy, smooth sea, temperature 60°; Wilson's Promontory, N.W., 23, cloudy, squally, smooth sea, temperature 67°.

New South Wales.—Menindie, calm, dull, like rain, temperature 68°; Wentworth, N., dull, like rain, temperature 59°; Deniliquin, N.W., dull, temperature 68°; Eden, N.E., fine, smooth sea, temperature 64°; Cape George, W., 28, fine, smooth sea, temperature 70°; Sydney, N.N.E., 5, fine but cloudy, smooth sea, temperature 67°; Newcastle, N.W., fine, smooth sea, temperature 70°; Port Macquarie, N.N.E., 14, fine, smooth sea, temperature 70°; Clarence River, N.E., 14, fine, smooth sea, temperature 72°; Dubbo, N.W., fine but cloudy, temperature 67°; Goulburn, N.W., 14, dull, temperature 61°.

STATE OF RIVERS.

Murrumbidgee: At Hay, below summer level; at Balranald, below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, low; at Pooncarie, low; at Menindie, low; at Wilcannia, low.

ASTRONOMICAL MEMORANDA FOR MAY 18.

Sun rises at 6.48, sets at 5.4; Moon, 5.44 p.m., 6.11 a.m.; Mercury, 4.55 a.m., 4.4 p.m.; Venus, 3.10 a.m., 2.58 p.m.; Mars, 1.32 p.m., 12.48 a.m.; Jupiter, 2.10 p.m., 1.58 a.m.; Saturn, 9.51 a.m., 7.43 p.m. New moon, 4th; full moon, 18th.

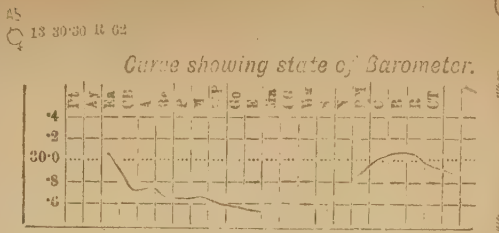
High water at Fort Denison: 6.15 a.m., 8.39 p.m.

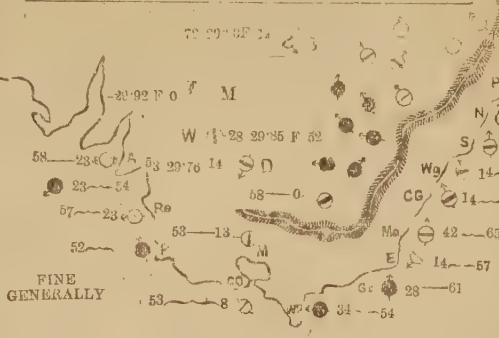
Albury	g	63	50	0·85
Armidale	b	62	43	0
Balranald	g	74	—	0·24
Bathurst	r	71	45	0·03
Bend'm'r	g	63	40	0
Bodalla ..	g	—	46	0·01
Bourke ..	g	76	65	0
C'md'n H	b	73	59	0
C. St. Geo.	c	72	63	0
Carcoar ..	r	69	50	0·41
Casino ..	b	62	43	0
Cassilis ..	c	67	46	0
Clarence	b	77	61	0
C'nd'b'lin	r	72	52	0·79
Cooma ..	r	69	39	0·08
Coonab'n	g	77	46	0
C'nam ble	g	—	—	0
Cowra ..	r	69	45	0·81
Deniliq'n	g	71	49	0·66
Dubbo ..	r	76	49	0
Eden	g	64	50	0·36
Euston ..	g	71	69	0·36
Forbes ..	r	66	46	0·90
Gl'n Inn's	o	75	38	0
Goulburn	g	68	44	0·15
Grafton ..	f	86	60	0
Gulgong	g	68	54	0
Gunned'h	b	75	51	0
Hay	r	76	51	0·83
Hill End	r	—	—	0
Inverell ..	b	69	42	0
Kiandra	r	60	33	1·63
Lismore	b	87	51	0
Maitl'd	c	69	50	0
Marsdens	r	75	51	0·52
Menindie	g	77	58	1·10
Molong ..	r	70	—	0·21
Moree ..	b	83	55	0
Moruya ..	b	72	52	0
Moss Vale	r	65	48	0·02
Mt. Hope	r	68	54	1·50
M. Victoria	g	65	54	0
Mudgee ..	g	73	42	0
M'rr'm'bh	r	86	49	0·60
M'rr'ndi	b	69	52	0
Mus'br'k	b	78	45	0
Narrabri	o	73	46	0
Newcastle	b	73	55	0
Nowra ..	—	—	—	0
Orange ..	r	60	43	0·42
Picton ..	g	73	43	0
P. M'q'rie	b	71	54	0
P. St'ph'n	c	80	63	0
Q'nbeyan	r	64	45	0
Quirindi	b	86	46	0
Singleton	b	71	49	0
Sydney ..	o	69	57	0
Tamw'rth	b	75	—	0
Taralga ..	r	73	38	0·08
Taree	b	74	50	0
T'nt'rfield	b	75	28	0
Wagga ..	r	69	51	0·90
Walcha ..	c	68	35	0
Walgett..	g	71	57	0
W'ntw'rth	g	71	51	0·14
Wilcannia	c	—	—	0
W'll'ng'ng		75	58	0
Young ..	r	85	54	0·67

SYDNEY OBSERVATORY

Latitude 33° 51′ 42″ S. Longitude 10h. 4m. 52·9s. E.

Average Annual Rainfall for 27 years ..... 40·865
Average for 28 years from Jan. 1st to April 30th ..... 20·363
Total Rainfall from January 1st to May 1st, 1903 ..... 12·310
Barometers corrected to 32° Fah. and Mean Sea Level





H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Eu, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On south coast, showery, with fresh south winds and rough sea. Rainfall at Esperance Bay, 43 points; barometer 30·06, and temperature 55°.

South Australia.—Generally more or less cloudy, raining in places on and near the coast, heaviest at Cape Borda and Macdonald Bay. Inland, generally fine and calm. Rainfall: Adelaide, 0·04; Robe, 0·28; Cape Borda, 0·94; and Streaky Bay, 0·24. Extremes of barometers and temperature: Alice Springs, 30·30; M'Donnell Bay, 29·63 and 54°; and Port Darwin, 83°.

Victoria.—Generally raining, and gloomy, with fresh westerly winds, fallen barometers, and moderate sea. Rainfall: Wilson's Promontory, 0·35; Melbourne, 0·11; Lakes Entrance, 0·07; Cape Otway, 0·18; Cape Schanck, 0·26; Ballarat, 0·41; Hamilton, 0·11; and still raining at Portland, Wilson's Promontory, and Hamilton. Extremes of barometers and temperature: Melbourne, 29·70; Wilson's Promontory, 29·50; Cape Schanck, 58°; and Ballarat, 51°.

Tasmania.—Generally gloomy and raining, with fresh westerly winds and calms, fallen barometers, and moderate sea. Rainfall: Circular Heads, 0·15; Low Heads, 0·56; Southport, 0·20; and still raining at the two last at 9 a.m. Extremes of barometers and temperature: In north, 29·49 and 55°; in south, 29·37 and 50°.

New Zealand.—Generally fine, with light variable winds and calm, and barometers risen to 30°.

New South Wales.—Generally cloudy, gloomy, and raining, with light W. and N.W. winds, fallen barometers, and smooth sea. Twenty-five stations, scattered between the Darling and the sea to the south of Sydney, but principally beyond the mountains due west of Sydney, report rain, most of them from ¾ to 1½ inch, and at 18 of these it was still raining more or less heavily at 9 o'clock this morning. Extra stations:—Tumut, rainfall 1·18, and still raining; Temora, 93 points, and still raining; Bundarra, max. 73°, min. 45°, cloudy; Morangarell, max. 77°, min. 58°, 50 points rain, and raining; Warrah, max. 72°, min. 50°, fine and clear; Burrowa, 1·40 rain, and still raining. (For further particulars see map.)

Queensland.—Generally fine and clear, with light S.E. winds, and moderate sea; no rain fallen. Extremes of barometers and temperature: Brisbane, 30·06 and 63°; Townsville, 29·82; and Cooktown, 86°, and 21 points rain.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 34, passing showers, smooth sea, temperature 58°; Cape Otway, N.W., 13, showery, misty, smooth sea, temperature 54°; Melbourne, W., 13, cloudy, temperature 60°; Cape Schanck, S.W., 23, fine, but cloudy [illegible], moderate sea, temperature 60°; Lakes Entrance, W., [illegible] squally, rough sea, temperature 52°.

New South Wales.—Menindie, S.W., 14, fine, temper[illegible]; Wentworth, W.S.W., 28, fine but cloudy, temperature 58°; Deniliquin, S.W., fine, temperature 68°; Eden, S.W. 18, cloudy, like rain, smooth sea, temperature 60°; Moruya, N.N.W., 23, cloudy and gloomy, smooth sea, temperature 68°; [illegible] George, W., 14, cloudy, like change, smooth sea, tem[illegible] 67°; Sydney, N.W., 12, cloudy and gloomy, smooth [illegible] ture 63°; Newcastle, W., 17, dull, smooth sea, tem[illegible]; Port Macquarie, N.N.E., 42, fine, moderate sea, tem[illegible]; Clarence River, N., 28, fine, smooth sea, temperature 7[illegible] N.W., light showers since 2 p.m., temperature 67°; Dub[illegible] W., raining, temperature 66°; Goulburn, N.W., 14, dull, [illegible] rain, temperature 59°. Young reports 140 points rain up [illegible] p.m., and raining steadily.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 6 inches above summer [illegible]; at Hay, below summer level; at Balranald, 3 feet below [illegible] level. Murray: At Albury, below summer level; Eu[illegible] Darling: At Wentworth, below summer level; at Poone[illegible], at Menindie, low; at Wilcannia, low; at Bourke, low; at Walgett, low.

ASTRONOMICAL MEMORANDA FOR MAY 19.

Sun rises at 6.49, sets at 5.3; Moon, 6.29 p.m., 7.10 [illegible]; Mercury, 4.38 a.m., 4.4 p.m.; Venus, 3.11 a.m., 2.57 p.m. [illegible], 1.29 p.m., 12.45 a.m.; Jupiter, 2.6 p.m., 1.54 a.m.; Saturn 9.48 a.m., 7.4 p.m. New moon, 4th; full moon, 18th.

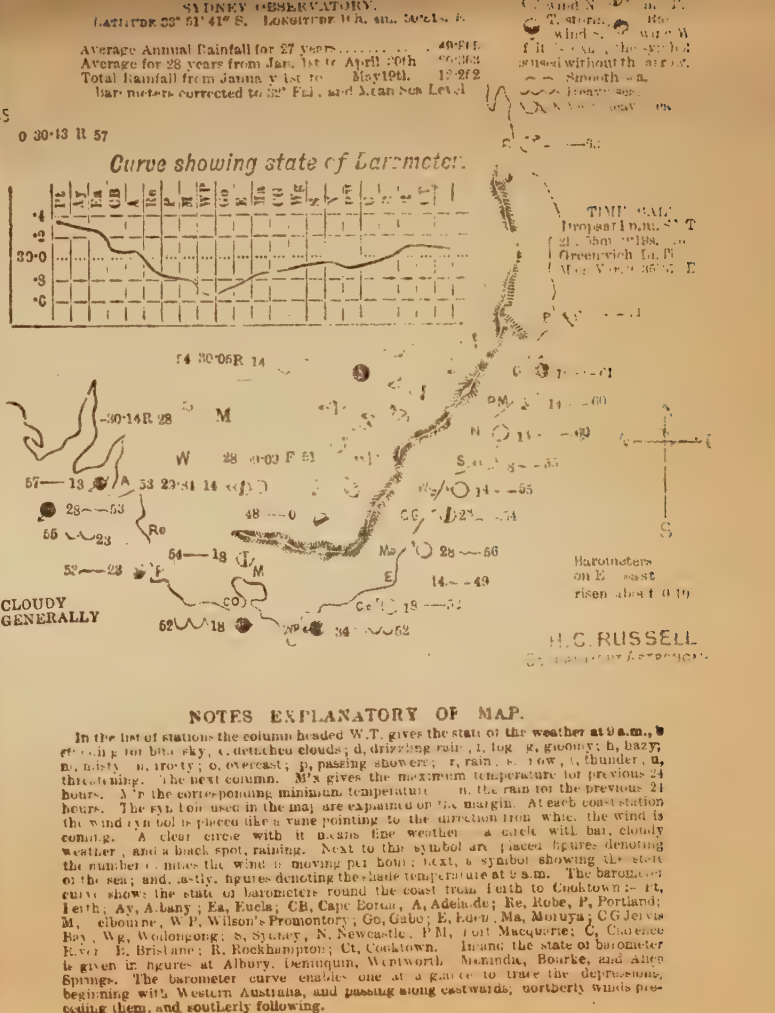
High water at Fort Denison: 9.0 a.m., 9.20 p.m.

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10 h. 4m. 30·21s. E.

Average Annual Rainfall for 27 years ..... 49·21
Average for 28 years from Jan. 1st to April 30th 20·36
Total Rainfall from January 1st to May 19th. 19·272
Barometers corrected to 32° Fah., and Mean Sea Level

Stations	wt	Mx	min	Rain
Albury	c	58	45	0·06
Armidale	g	63	47	0·15
Balranald	g	70	—	0
Bathurst	b	60	41	1·30
Bend'm'r	g	65	51	0·60
Bodalla ..	b	—	31	0
Bourke ..	b	79	54	0·23
C'mdn H	g	77	61	0
C.St. Geo.	b	60	62	0
Carcoar ..	r	57	48	1·40
Casino ..	g	83	60	0
Cassilis ..	b	69	51	0·25
Clarence	r	79	61	0·06
C'nd'b'lin	g	64	49	0·60
Cooma ..	n	68	31	0
Coonab'n	b	70	43	0·48
C'nam ble	b	—	—	0·20
Cowra ..	b	61	49	0·84
Deniliq'n	b	65	40	0
Dubbo ..	f	66	46	0·36
Eden	b	61	45	0
Euston ..	b	69	46	0
Forbes ..	h	60	46	0·68
Gl'n Inn's	g	70	33	0·36
Goulburn	g	57	39	0·57
Grafton ..	g	85	53	0·02
Gulgong	g	64	43	0·77
Gunned'h	c	75	55	0·85
Hay	b	60	44	0
Hill End	g	—	—	1·70
Inverell ..	g	72	42	0·46
Kiandra	f	47	34	1·07
Lismore	g	83	60	0
Maitland	b	71	54	0·20
Marsdens	b	65	46	0·62
Menindie	c	65	53	0
Molong ..	b	54	47	1·70
Moree ..	b	77	54	0·39
Moruya ..	b	74	45	0
Moss Vale	b	64	43	0·11
Mt. Hope	g	53	48	0·30
M. Vict'ria	b	63	38	0·50
Mudgee ..	c	65	41	0·64
M'rr'm'bh	o	57	47	0·59
M'rr'ndi	g	70	49	0·93
Mus'br'k	b	78	47	0·06
Narrabri	o	73	48	0·55
Newcastle	b	78	53	0
Nowra ..	–	—	—	–
Orange ..	g	56	39	2·17
Picton ..	b	64	48	0·23
P. M'q'rie	b	75	58	0
P. St'ph'n	c	78	50	0·15
Q'nbeyan	o	56	42	0·44
Quirindi	b	84	55	0·55
Singleton	b	76	57	0·25
Sydney ..	b	75	50	0·04
Tamw'rth	c	76	47	0·58
Taralga ..	r	69	40	0·90
Taree	o	84	54	0·06
T'nt'rfield	c	73	58	0·07
Wagga ..	g	68	39	0·12
Walcha ..	r	67	47	0·24
Walgett ..	b	73	49	0·58
W'ntw'rth	b	67	51	0
Wilcannia	b	—	—	0
W'll'ng'ng	g	69	52	0·35
Young ..	c	59	46	0·45



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b fine, bright sky, c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M's gives the maximum temperature, and the rain for the previous 24 hours. M'n the corresponding minimum temperature. The rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to the symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W.P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, risen barometers, and moderate sea. In north, light easterly winds. In south, calm. Gloomy at Esperance Bay. Albany, four points rain. Extremes of barometers and temperature: Perth, 30·34 and 47°; Cossack, 29·90; and Carnarvon, 76°.

South Australia.—Generally cloudy and gloomy inland, and showery on coast. Winds fresh from W. and S.W., and sea rough. Rainfall: Hoyleton, 1·12; Moonta, 0·97; Crafers, 0·80; Robe, 0·53; Cape Borda, 0·35; Adelaide, 0·43; Port Lincoln, 0·24; Streaky Bay, 0·30; Eucla, 0·28; and M'Donald Bay, 0·15. Extremes of barometers and temperature: Alice Springs, 30·43; Port Darwin, 29·91 and 85°; and on south coast, several places, 53°.

Victoria.—Generally cloudy, gloomy, and showery, with risen barometers, strong squally westerly winds, and rough sea. Rainfall: Portland, 0·26; Lakes Entrance, 0·23; Cape Otway, 0·15; Melbourne, 0·09; Echuca, 0·06; Hamilton and Horsham, each 0·02; and at Bohland. Cape Otway and Wilson's Promontory, it was still raining at 9 a.m. Extremes of barometers and temperature: Ballarat, 29·91; and 47°; Wilson's Promontory, 29·60; and Horsham, 58°

Tasmania.—Generally cloudy and gloomy, with very low barometers, strong squally westerly winds, and rough sea. Rainfall generally from 0·06 to 0·10, and still raining at 9 a.m. at Southport. Extremes of barometers and temperature: Circular Heads, 29·57 and 47°; Southport, 29·24; and Low Heads, 53°.

New Zealand.—Generally fine, with strong N.W. winds. Raining at Wellington. Barometers: In north, 30·2; and in south, 29·3.

New South Wales.—Generally cloudy and unsettled, with light rain at a few stations on or near mountains west and north of Sydney. Yesterday's rain was very general in the central and eastern divisions of the colony. The heaviest fall took place on the western slope of the range, nearly west of Sydney; twelve stations scattered in that locality report from one to two inches of rain, and at two of them, viz., Taralga and Carcoar, it was still raining at 9 a.m. to-day. In the western division it was cloudy; but little or no rain fell. Barometers have risen and temperature fallen generally. Winds still continue westerly, and sea smooth. Extra stations:—Bundarra, max. 73°, min. 51°, rain 0·45, and cloudy; Morungarell, max. 60°, min. 41°, rain 0·65, foggy; Warrah, max. 72°, min. 48°, rain 0·69, calm and fine; Temora, 35 points rain. (For further particulars see map.)

Queensland.—Generally fine, with light winds from N.E. to S.E., and moderate sea. Extremes of barometers and temperature: Rockhampton, 30·09 and 63°; Townsville, 29·83; and Cooktown, 89°; no rain fallen.

3 P.M. OBSERVATIONS.

Victoria.—Cape Schanck, W.N.W., 34, misty and squally, rough sea, temperature 58°; Cape Otway, W.N.W., 18, showery and misty, rough sea, temperature 56°; Melbourne, W.N.W., 18, cloudy and squally, temperature 57°; Wilson's Promontory, W., 40, showery and squally, rough sea, temperature 53°; Lakes Entrance, W., 23, fine, but cloudy, moderate sea temperature 60°.

New South Wales.—Menindie, S., fine, temperature 64°; Wentworth, S.W., 14, dull and cloudy, temperature 57°; Deniliquin, S.W., 14, cloudy, temperature 64°; Eden, N.W. 28, fine, smooth sea, temperature 65°; Moruya, W.N.W., 28, fine, smooth sea, temperature 67°; Cape St. George, W., 42, fine, smooth sea, temperature 67°; Sydney, W., 16, fine, smooth sea, temperature 64°; Newcastle, S.W., 14, fine, smooth sea, temperature 67°; Port Macquarie, S., 28, fine, smooth sea, temperature 70°; Clarence River, S., dull, smooth sea, temperature 74. Walgett, N.W., fine, temperature 67°; Dubbo, W., fine, temperature 63°; Goulburn, N.W., 14, fine, temperature 57.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 8 inches above summer level; at Hay, below summer level; at Balranald, 3 feet below summer level. Murray: At Albury, below summer level; Euston, low Darling: At Wentworth, below summer level; at Pooncarie, low, at Menindie, low; at Wilcannia, low; at Bourke, low; at Walgett, low.

ASTRONOMICAL MEMORANDA FOR MAY 20.

Sun rises at 6.50, sets at 5.3; Moon, 7.19 p.m., 8.7 a.m., Mercury, 5.1 a.m., 4.4 p.m.; Venus, 3.12 a.m., 2.56 p.m., Mars, 1.26 p.m., 12.43 a.m.; Jupiter, 2.2 p.m., 1.50 a.m.; Saturn, 9.44 a.m., 7.37 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison: 9.39 a.m., 9.59 p.m.

Albury	c	57 48	0	
Armidale	b	58 46	0	
Balranald	g	67 —	0	
Bathurst	b	54 41	0·02	
Bend'm'r	b	55 40	0	
Bodalla ..	b	— 32	0	
Bourke ..	b	76 42	0	
C'md'n H	b	71 46	0	
C. St. Geo	b	68 58	0	
Carcoar ..	g	54 46	0·07	
Casino ..	b	81 39	0	
Cassilis .	b	58 46	0	
Clarence	o	77 55	0	
C'nd'b'lin	b	60 47	0	
Cooma ..	a	61 26	0	
Coonab'n	b	62 37	0	
C'nam ble	b	— —	0	
Cowra ..	g	62 48	0	
Deniliq'n	b	63 42	0	
Dubbo ..	g	60 37	0	
Eden	b	66 51	0	
Euston ..	b	66 48	0	
Forbes ..	—	— —	0	
Gl'n Inn's	b	56 29	0	
Goulburn	b	57 42	0	
Gr fton ..	b	75 46	0	
Gulgong	b	66 43	0	
Gunned'h	b	67 43	0	
Hay	b	61 44	0	
Hill End	g	— —	0	
Inverell ..	b	62 38	0	
Kiandra	b	42 33	0·54	
Lismore	—	— —	0	
Maitland	b	64 56	0	
Marsdens	c	63 46	0·04	
Menindie	g	63 49	0	
Molong ..	b	64 36	0·10	
Moree ..	b	72 42	0	
Moruya ..	b	71 43	0	
Moss Vale	b	54 44	0	
Mt. Hope	b	51 42	0	
M. Vict'ria	b	50 38	0	
Mudgee ...	b	63 38	0	
M'r'm'bh	b	78 49	0	
M'r'r'ndi	b	59 44	0	
Mus'll'br'k	n	67 42	0	
Narrabri	b	68 36	0	
Newcastle	b	69 50	0	
Nowra ..	—	— —	—	
Orange ..	b	51 40	0·07	
Picton ..	b	63 49	0	
P. M'q'rie	b	70 38	0	
P. St'ph'n	b	78 57	0	
Q'nbeyan	b	54 45	0	
Quirindi	b	63 48	0	
Singleton	b	61 55	0	
SYDNEY ..	b	65 55	0	
Tamw'rth	b	61 41	0	
Taralga ..	b	65 38	0	
Taree	b	73 49	0	
T'nt'rfield	b	63 40	0	
Wagga ..	c	63 42	0	
Walcha ..	b	56 39	0	
Walgett ..	b	63 45	0	
W'ntw'rth	b	65 51	0	
Wilcannia	b	— —	0	
W'll'ng'ng	b	70 55	0	
Young ..	b	65 46	0·08	

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to April 30th 10·363
Total Rainfall from January 1st to May 30th 12·252
Barometers corrected to 32° Fah. and Mean Sea Level

T. storm, Rain.
wind S. wind W
If it is CALM, the symbol is used without the arrow
Smooth sea.
Heavy sea.
Very heavy sea.

Curve showing state of Barometer.

TIME BALL.
Drops at 1 p.m. SAT
2h. 55m. 9·19s. a.m
Greenwich Mn. Time
Mag. Var. 9° 35' 37" E

Barometers on E. coast risen about 0·20

FINE GENERALLY

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, unpleasant, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt., Perth; Ay., Albany; Ba, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, bearing with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Albany: Showery weather, strong south wind, and moderate sea. Barometer, 30·23; temperature, 57°; and rainfall, 9 points.

South Australia.—Generally cloudy and gloomy, with light rain in places on south coast, fresh west winds, and rough sea. Rainfall: Kadina, 0·28; Angaston, 0·25; Wallaroo, 0·20; and all other stations on coast from one to 11 points. Inland, and in Northern Territory, generally fine, with southerly winds, and risen barometers. Extremes of barometers and temperature: Alice Springs, 30·40; Port Darwin, 29·94, and 81°; and Robe, 53°.

Victoria.—Generally cloudy and gloomy, with strong squally westerly winds, risen barometer, and rough sea. Rainfall: Portland, 0·08; Cape Otway, 0·03; Cape Schanck, 0·10; Melbourne, 0·01; Hamilton, 0·05; Ballarat, 0·07; Lakes Entrance and Horsham, each 0·01; Wilson's Promontory, 0·14; and at the two last places it was still raining at 9 a.m. Extremes of barometers and temperature: Horsham, 30·25; and 58°; Wilson's Promontory, 30·01; and Omeo, 47°.

Tasmania.—Generally fine, but cloudy, with very strong squally westerly winds, and rough sea. Rainfall: Southport, 0·65; Hobart, 0·24; Low Heads, 0·01; Circular Heads, 0·05; and at the last places still raining at 9 a.m. Extremes of barometers and temperature: Circular Head, 36·00; and 49°; Southport, 29·79; and 52°.

New Zealand.—Generally raining heavily, with strong squally N.W. winds. Barometers: Russell, 30·0; Wellington, 29·6; and Bluff, 29·2.

New South Wales.—Generally fine and clearing, with light westerly winds and calm, risen barometers, and smooth sea. Light rain has fallen at a few stations on mountains west of Sydney, and in S.W. parts it was cloudy and threatening rain this morning. Extremes of barometers and temperature at 9 a.m.: Menindie 30·40, Eden 30·07, Armidale 6·40, and Cooma 30°. Extra stations:—Bundarra, max. 63°, min. 40°, calm and fine; Morangarell, max. 65°, min. 48°, rainfall 0·04, and cloudy; Warrah, max. 62°, rain. 45°, calm, fine, and clear. (For further particulars see map.)

Queensland.—Generally fine, with light S. and W. winds and calm, risen barometers and moderate sea. No rain fallen. Extremes of barometers and temperature: Brisbane, 30·17 and 54°; Townsville, 29·87; and Cooktown, 87°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 13, cloudy, rough sea, temperature 56°; Cape Otway, W.N.W., 13, light rain and foggy, smooth sea, temperature 55°; Melbourne, W.S.W., 13, cloudy and gloomy, temperature 56°; Cape Schanck, S.W., 23, gloomy and misty, rough sea, temperature 59°; Wilson's Promontory, W., 23, cloudy and squally, rough sea, temperature 55°; Lakes Entrance, W., 23, fine, but cloudy, moderate sea, temperature 62°.

New South Wales.—Wentworth, S.W., 28, dull and overcast, temperature 57°; Deniliquin, S.W., 14, cloudy, temperature 65°; Moruya, S.E., 28, fine, smooth sea, temperature 64°; Cape St. George, calm, fine, smooth sea, temperature 66°; Newcastle, S.E., 14, fine, smooth sea, temperature 69°; Port Macquarie, W.S.W., fine, smooth sea, temperature 75°; Walgett, calm, fine, temperature 51°; Dubbo, E., 14, fine, temperature 62°; Goulburn, N.W., 14, fine, temperature 58.

STATE OF RIVERS.

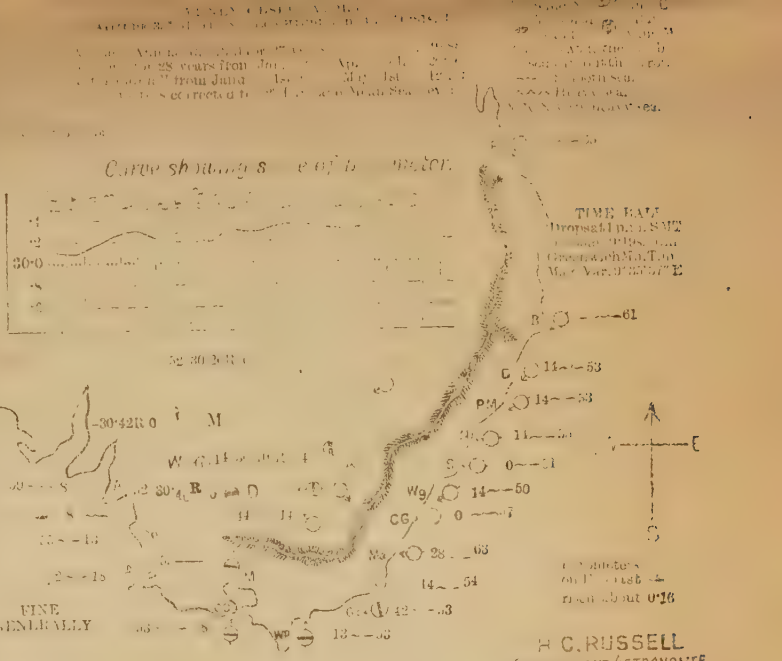
Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, below summer level; at Balranald, 2 feet 6 inches above summer level. Murray: At Albury, below summer level; Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, low; at Menindie, below summer level; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 21.

Sun rises at 6.51, sets at 5.2; Moon, 8.10 p.m., 9.1 a.m.; Mercury, 5.4 a.m., 4.4 p.m.; Venus, 3.13 a.m., 2.55 p.m.; Mars, 1.22 p.m., 12.40 a.m.; Jupiter, 1.58 p.m., 1.46 a.m.; Saturn, 9.41 a.m., 7.33 p.m. New moon, 4th; full moon, 18th.

High water at Fort Denison: 10.18 a.m., 10.37 p.m.

Albury	c	60	0
Ardlethan	b	57	0
Balranald	g	66	0
Bathurst	n	59	0
Bend'n.	c	60	0
Braidalla	b		0
Bourke	b	80	0
C'md'n H	b		0
C. St. Geo	b		0
Carcoar	n	59	0
Casino	b	70	0
Cassilis	n	59	0
Clarence	c	74	0
C'nd'b'lin	c	59	0
Cooma	n	67	0
Coonab'n	n	65	0
C'namble	b		0
Cowra	b	68	0
Deniliq'n	g	63	0
Dubbo	b	64	0
Eden	b	63	0
Euston	g	64	0
Forbes	b	59	0
Gl'n Inn's	b	69	0
Goulburn	n	62	0
Grafton	b	76	0
Gulgong	b	64	0
Gunned'h.	b	68	0
Hay	g	60	0
Hill End	b	—	0
Inverell	b	61	0
Kiandra	n	47	0
Lismore	b	79	0
Maitland	b	63	0
Marsdens	c	62	0
Menindie	g	61	0
Molong	b	62	0
Moree	b	74	0
Moruya	b	69	0
Moss Vale	n	56	0
Mt. Hope	g	54	0
M. Victoria	b	55	0
Mudgee	b	75	0
M'rr'm'bh	b	73	0
M'rr'ndi	n	59	0
Mus'br'k	n	69	0
Narrabri	b	63	0
Newcastle	b	71	0
Nowra	b	70	0
Orange	b	51	0
Picton	n	65	0
P. M'q'rie	b	66	0
P.-St'ph'n	b	80	0
Q'nbeyan	b	66	0
Quirindi	b	71	0
Singleton	b	60	0
Sydney	b	65	0
Tamw'rth	b	64	0
Taralga	b	61	0
Taree	b	72	0
T'nt'rfield	b	69	0
Wagga	c	59	0
Walcha	n	60	0
Walgett	b	61	0
W'ntw'rth	g	64	0
Wilcannia	g	—	0
W'll'ng'ng	b	72	0
Young	b	66	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., **b** storming for blue sky; **c**, detached clouds; **d**, drizzling rain; **f**, fog; **g**, gloomy; **h**, hazy; **m**, misty; **n**, frosty; **o**, overcast; **p**, passing showers; **r**, rain; **s**, snow; **t**, thunder; **u**, threatening. The next column, M's gives the maximum temperature for previous 24 hours. And the corresponding minimum temperature; r'n, the rain for the previous 24 hours. See the symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A small circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Alb, Albany; Eu, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the west coast, fine with light variable winds: on south coast, cloudy with light west and north winds, fallen barometers, and smooth to moderate sea: no rain. Extremes of barometers and temperature: Geraldton, 30·18 and 67°; Esperance Bay, 30·11 and 48°.

South Australia.—Generally cloudy on south coast, with light northerly winds, and moderate sea; fine inland and in northern with S.E. winds and calm. Rainfall: Cape Borda, 0·15, and Robe, 0·02. Showery at Macdonnell Bay, and hazy in places on coast. Extremes of barometers and temperature: Alice Springs, 30·36; Port Darwin, 29·93, and 80°; Macdonnell Bay, 50°.

Victoria.—Generally fine but cloudy, with light northerly winds and moderate sea. Foggy along the coast, and squally at Wilson's Promontory. Rainfall: Portland, Cape Otway, Hamilton, and Wilson's Promontory, from 1 to 3 points. Extremes of barometers and temperature: Melbourne: 30·32; Wilson's Promontory, 30.21; Horsham, 59°, and Omeo 36°.

Tasmania.—Generally fine and hazy, with light N. and W. winds and calm, risen barometers, and moderate sea. No rain. Extremes of barometers and temperature: Circular Heads: 30·18 and 53°; Southport: 30·06; Falmouth, 51°.

New Zealand.—Generally fine, with light variable winds and calm, and risen barometers; Russell, 30·1; Wellington, 29·8; and Bluff, 29·5.

New South Wales.—Generally fine and cold, with light westerly winds, risen barometere, and smooth sea. In south and south-west parts gloomy and threatening rain. One station on the coast in south reports a few points of rain. From places on the mountains sharp frosts are reported, and at Sydney and Tamworth heavy dew. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·42; Forbes, 30·12; Moruya, 63°; and Kiandra, 33°. Extra stations: Bundarra, max. 68°, min. 37°, calm and fine; Moramarell, max. 60°, min. 48°, light S.W. wind, and dull; Warrah, max. 64°, min. 41°, calm, fine, and clear. (For further particulars see map.)

Queensland.—Generally fine and clear, with light south-east and east winds, risen barometers, and moderate sea. No rain. Extremes of barometers and temperature: 30·27 and 61° at Brisbane; 29·85 at Townsville; and at Cooktown, 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.W., 28, cloudy and threatening; rough sea, temperature 60°; Cape Otway, W., 8, fine but cloudy, rough sea, temperature 60°; Melbourne, N., 13, cloudy, temperature 57°; Cape Schanck, N.W., 13, fine but misty, smooth sea temperature 58°; Wilson's Promontory, N.W., 18, cloudy and squally, smooth sea, temperature 55°; Lakes Entrance, W., 13, fine, but cloudy, smooth sea, temperature 59°.

New South Wales.—Menindie, calm, dull, and cloudy, temperature 61°; Wentworth, N., 14, dull and cloudy, temperature 62°; Deniliquin, calm, dull, and cloudy, temperature 65°; Eden, N.E., 14, fine light E.S.E. sea, temperature 58°; Moruya, N.E., 14, fine, smooth sea, temperature 67°; Cape St. George, W.N.W., 14, fine, smooth sea, temperature 65°; Sydney, N.N.W., 14, fine, smooth sea, temperature 66°; Newcastle, N.W., 14, fine, smooth sea, temperature 68°; Port Macquarie, N.E., 14, fine, smooth sea, temperature 70°; Clarence River, S., 14, cloudy, smooth sea, temperature 71°; Walgett, calm, fine and clear, temperature 62°; Dubbo, calm, fine, temperature 61°; Goulburn, calm, fine, and clear, temperature 57°.

STATE OF RIVERS.

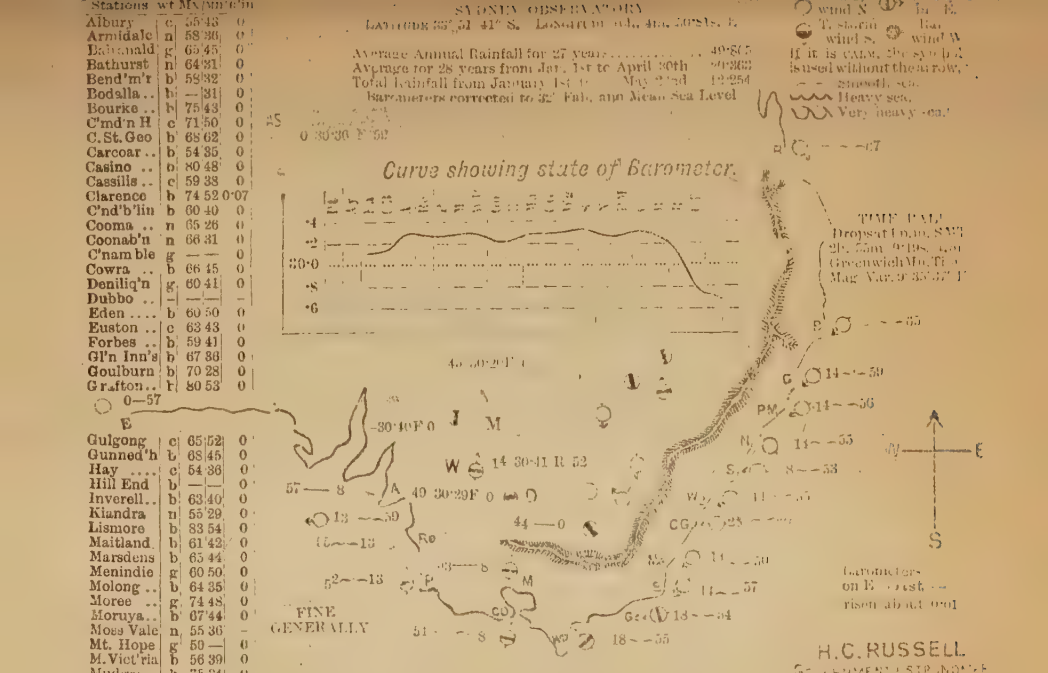
Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, below summer level; at Balranald, 2 feet 6 inches above summer level. Murray: At Albury, 2 inches below summer level; Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, low; Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 22.

Sun rises at 6.51, sets at 5.1; Moon, 9.1 p.m., 9.50 a.m.; Mercury, 5.8 a.m., 4.5 p.m.; Venus, 3.14 a.m., 2.54 p.m.; Mars, 1.19 p.m., 12.38 a.m.; Jupiter, 1.54 p.m., 1.42 a.m.; Saturn, 9.38 a.m., 7.30 p.m.; New Moon, 4th; full moon, 18th.

High water at Fort Denison: 10.55 a.m., 11.14 p.m.

Stations	wt	M's	m'n	r'n
Albury	c	55	43	0
Armidale	n	58	36	0
Balranald	g	65	45	0
Bathurst	n	64	31	0
Bend'm'r	b	58	32	0
Bodalla ..	b	—	31	0
Bourke ..	b	75	43	0
C'md'n H	c	71	50	0
C. St. Geo	b	68	62	0
Carcoar ..	b	54	35	0
Casino ..	o	80	48	0
Cassilis ..	c	59	38	0
Clarence	b	74	52	0·07
C'nd'b'lin	b	60	40	0
Cooma ..	n	65	26	0
Coonab'n	n	66	31	0
C'nam ble	g	—	—	0
Cowra ..	b	66	45	0
Deniliq'n	g	60	41	0
Dubbo ..	—	—	—	—
Eden	b	60	50	0
Euston ..	c	63	43	0
Forbes ..	b	59	41	0
Gl'n Inn's	b	67	36	0
Goulburn	b	70	28	0
Grafton ..	r	80	53	0
Gulgong ..	c	65	52	0
Gunned'h	b	68	45	0
Hay	c	54	36	0
Hill End	b	—	—	0
Inverell ..	b	63	40	0
Kiandra	n	55	29	0
Lismore	b	83	54	0
Maitland	b	61	42	0
Marsdens	b	65	44	0
Menindie	g	60	50	0
Molong ..	b	64	35	0
Moree ..	g	74	48	0
Moruya ..	b	67	44	0
Moss Vale	n	55	36	—
Mt. Hope	g	50	—	0
M. Vict'ria	b	56	39	0
Mudgee ..	b	75	34	0
M'rr'm'bh	b	60	38	0
M'rr'ndi	o	60	39	0
Mus'br'k	b	70	31	0
Narrabri	c	63	39	0
Newcastle	b	61	49	0
Nowra ..	b	—	—	0
Orange ..	—	52	32	—
Picton ..	n	63	35	0
P. M'q'rie	f	68	49	0
P. St'ph'n	b	79	59	0
Q'nbeyan	b	55	44	0
Quirindi	b	72	45	0
Singleton	b	64	42	0
SYDNEY ..	h	65	50	0
Tam'w'rth	b	67	38	0
Taralga ..	n	66	28	0
Taree	b	73	42	0
T'nt'rfield	b	68	36	0
Wagga ..	b	58	33	0
Waloha ..	n	60	29	0
Walgett ..	b	62	45	0
W'ntw'rth	c	65	50	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	72	49	0
Young ..	b	81	38	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M's, gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Encla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Esperance Bay: Fine weather, light north wind, and smooth sea; no rain; barometer 30·16 and temperature 46° at 9 a.m.

South Australia.—Generally cloudy and gloomy inland to Belbana, but scattered clouds on coast; winds on coast, light northerly, and smooth sea; inland, E. and S.E. winds and calm. Rainfall: 0·02 at Macdonnell Bay. Extremes of barometers and temperature: Adelaide, 30·31; Port Darwin, 29·91 and 82°; and Macdonnell Bay, 48°.

Victoria.—Generally cloudy and threatening rain, with light northerly winds and moderate sea. Hazy, misty, and squally in places on coast. Rainfall: Portland, 0·02. Extremes of barometers and temperature: Omeo, 30.35 and 40°; Portland, 30·25, and Horsham 59°.

Tasmania.—Generally fine but cloudy, with light west and north winds risen barometers, and moderate sea. Rainfall: Circular Heads, 0·15; Low Heads, 0·04. Extremes of barometers and temperature: Low Heads 30·24, Southport 33·15 and 56°, and Hobart 48°.

New Zealand.—Generally fine, with light north-west winds and calms. Barometers: Russell 30·4, Wellington, 30·2, and Bluff 30·1.

New South Wales.—Generally fine and cold, with light westerly winds, high and almost steady barometers, and smooth sea. In south-west parts cloudy, on mountains frosty, and in places of coast districts fogs and heavy dew. Clarence is the only place where rain has fallen. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·41; Forbes, 30·11; Lismore, 60°; and Cooma, 31°. Extra stations: Bundarra, max. 71°, min. 38°, calm and fine; Morangarell, max. 66°, min. 37°, calm and fine; Warrah, max. 66°, min. 43°, calm and fine. (For further particulars see map.)

Queensland.—Generally fine and clear, with light S.E. and E. winds, and moderate sea. Cooktown, strong S.E. wind and rough sea. Cape Moreton, 0·24 of rain. Extremes of barometers and temperature: Brisbane, 30·23 and 65°; Townsville, 29·81° and Cooktown, 87°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 3 feet above summer level, and rising; at Hay, summer level; at Balranald, 2 feet 6 inches below summer level. Murray: At Albury, 3 feet above summer level; Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, low; Bourke, low; at Walgett, low.

ASTRONOMICAL MEMORANDA FOR MAY 24.

Sun rises at 6.53, sets at 5; Moon, 10.46 p.m., 11.16 a.m., Mercury, 5.17 a.m., 4.7 p.m.; Venus, 3.16 a.m., 2.52 p.m.; Mars, 1.13 p.m., 12.34 a.m.; Jupiter, 1.46 p.m., 1.34 a.m.; Saturn, 9.31 a.m., 7.23 p.m. New Moon, 4th; full moon, 18th.

High water at Fort Denison: 12.13 p.m.

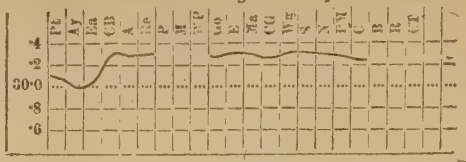
Stations	wt	Mx	Mn	R'fn
Albury	b	66	37	0
Armidale	g	60	40	0
Balranald	b	76	36	0
Bathurst	g	65	33	0
Bend'm'r	g,	65	41	0·01
Bodalla..	–	—	—	–
Bourke ..	g	77	57	0·20
C'md'n H	g	71	52	0
C.St.Geo	c	66	60	0
Carcoar..	b	57	41	0
Casino ..	g	79	51	0
Cassilis ..	–	—	—	–
Clarence	o	72	57	0
C'nd'b'lin	g	65	45	0·04
Cooma ..	f	64	29	0
Coonab'n	r	72	42	0·08
C'nam ble	r	—	—	0·50
Cowra ..	b	66	44	0
Deniliq'n	b	68	31	0
Dubbo ..	r	72	49	0·02
Eden	b	63	50	0
Euston ..	g	71	30	0
Forbes ..	o	—	45	0
Gl'n Inn's	o	68	42	0
Goulburn	g	62	42	0
Grafton..	o,	80	54	0
Guigong	c,	61	45	0
Gunned'h	g	69	45	0
Hay	c	67	41	0
Hill End	–	—	—	–
Inverell..	o	62	43	0
Kiandra	n	52	25	0
Lismore	g	79	58	0
Maitland	b	68	45	0
Marsdens	b,	70	46	0
Menindie	b,	59	48	0
Molong ..	g	62	32	0
Moree ..	g	79	57	0·02
Moruya..	g	66	49	0
Moss Vale	r	57	47	0
Mt. Hope	g	56	46	0·17
M. Vict'ria	g	59	39	0
Mudgee...	g	78	36	0
M'rr'm'bh	b	86	45	0
M'rr'n'di	f	61	41	0
Mus'lbr'k	g	72	45	0
Narrabri	c	72	61	0
Newcastle	b	71	55	0
Nowra ..	–	—	—	–
Orange ..	g	56	39	0
Picton ..	b	65	50	0
P. M'q'rie	c	71	53	0
P. St'ph'n	b	79	55	0
Q'nbeyan	b	57	40	0
Quirindi	g	77	46	0
Singleton	b	83	46	0
Sydney ..	c	66	55	0·01
Tamw'rth	–	—	—	–
Taralga ..	g	71	35	0
Taree	c	73	56	0·03
T'nt'rfield	g	71	44	0
Wagga ..	b	67	33	0
Walcha ..	r	63	30	0
Walgett..	g	72	59	0
W'ntw'rth	c	65	39	0
Wilcannia	g	—	—	0·05
W'll'ng'ng	b	71	58	0
Young ..	b	88	48	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years.....40·365
Average for 28 years from Jan. 1st to April 30th 20·363
Total Rainfall from January 1st to May 24th 12·267
Barometers corrected to 32° Fah. and Mean Sea Level

13 30·39 F 55

Curve showing state of Barometer.



58 30·27R 14

30·27F 14 M

W 28 30·33 F 42

56 8 48 30·29F 0

13 50

47 14

49 8 Re

P M

E 14 51

G 18 66

FINE GENERALLY

wind N. E. in E.
T. storm, Rain.
wind S. wind W
If it is CALM, the symbol is used without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.

TIME BALL.
Drops at 1 p.m. SMT
9h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35′ 57″ E

14 58
PM 28 58
N 14 66
S 5 57
Wg 28 60
CG 42 58
Ma 14 52

W E S

Barometers on E. coast — almost steady

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast, fine in north, with light south-east winds; cloudy in south, with S.E. and west winds; threatening at Perth, and two points of rain; on south coast, heavy showers from N.W. at Albany, and rainfall 0·14; fine with light north wind at Esperance Bay, sea smooth. Extremes of barometers and temperature: Geraldton, 30·16; Albany, 29·97; Esperance Bay, 50°; and Carnarvon, 75°.

South Australia.—On south coast, generally fine, with light easterly winds and calms, and smooth sea. No rain. Inland and in Northern Territory, fine and cold, with southerly winds and calms. Eucla reports strong squally west wind. Extremes of barometers and temperature: 30·39 at Alice Springs, 29·88 and 32° at Port Darwin, and 79° at Robe.

No telegrams from other colonies.

New South Wales.—Generally cloudy and unsettled, with light south to west winds and calms, high and almost steady barometers, and smooth sea. Light rain has fallen at 10 stations scattered on the tributaries of the Darling, heaviest at Coonamble, where half-an-inch fell, and at 9 a.m. it was still raining at 4 stations in the same locality, as well as at Moss Vale, just west of Sydney. The temperature generally is mild, heavy dew, fog, and frost in places. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·33; Forbes, 30·16; Newcastle, 66°; and Cooma, 38°. Inland stations: Bundarra, max. 71°, min. 40, calm and cloudy; Morangarell, max. 69°, min. 87°, cloudy; Warrah, max. 70°, min. 45°, calm and dull. (For further particulars see map.)

Queensland.—Cooktown: Fine weather, with light S.E. wind, and moderate sea. Barometer 29·99, temperature 87°, and rainfall 0.14.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.S.E., 24, fine, smooth sea, temperature 58.; Wilson's Promontory, N.E., 24, cloudy, smooth sea, temperature 58°.

New South Wales.—Sydney, E.S.E., 10, cloudy, like rain, temperature 63°.

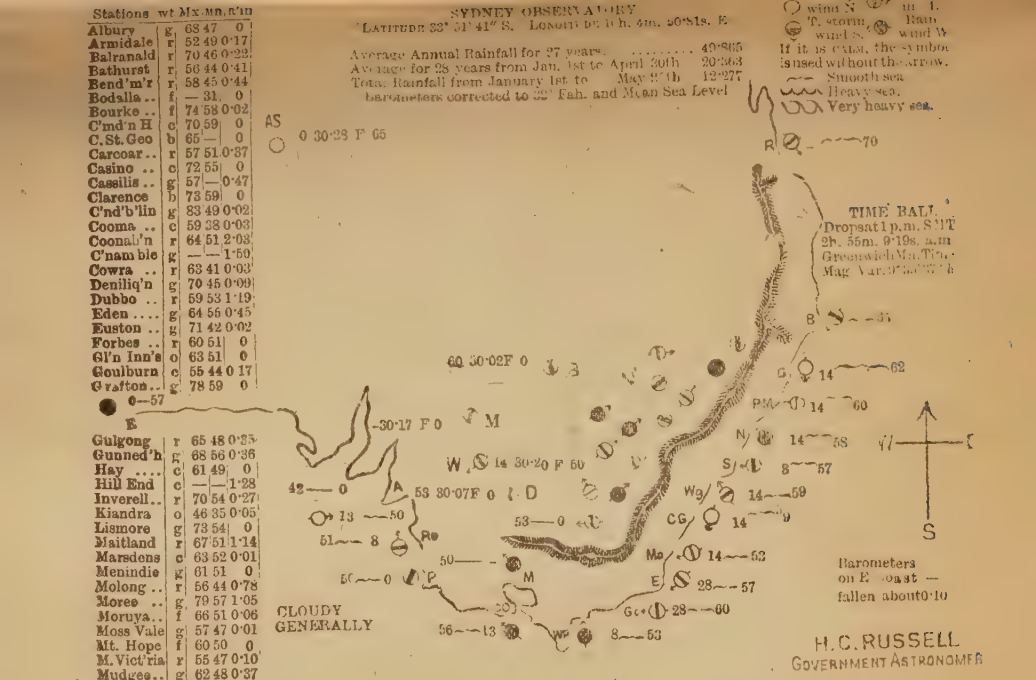
STATE OF RIVERS.

Murrumbidgee: At Wagga, 2 feet above summer level; at Hay, summer level; at Balranald, 2 feet below summer level. Murray: At Albury, 3 inches above summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 25.

Sun rises at 6.53, sets at 5; Moon, 11.39 p.m., 11.54 a.m.; Mercury, 5.22 a.m., 4.8 p.m.; Venus, 3.18 a.m., 3.51 p.m.; Mars, 1.9 p.m., 12.32 a.m.; Jupiter, 1.42 p.m., 1.30 a.m.; Saturn, 9.27 a.m., 7.19 p.m. New Moon, 4th; full moon, 18th.

High water at Fort Denison: 12.33 a.m., 12.53 p.m.



NOTES EXPLANATORY OF MAP.

The [illegible] stations the column headed W.T. gives the state of the weather at 9 a.m., b signifying [illegible]; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; [illegible]; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, [illegible]; v, [illegible]. The next column, M'x gives the maximum temperature for previous 24 hours. The next column, M'n gives the corresponding minimum temperature; Rain, the rain for the previous 24 hours. The [illegible] as indicated in the map are explained on the margin. At each coast station the wind is [illegible], and is represented like a vane pointing to the direction from which the wind is blowing. A circle with it means fine weather; a circle with bar, cloudy weather. A circle with dot, raining. Next to this symbol are placed figures denoting the force of the wind, the higher the figures the stronger the wind is moving per hour; next, a symbol showing the state of the weather, and beside, figures denoting the shade temperature at 9 a.m. The barometer observations [illegible] readings of barometers found the coast from Perth to Cooktown:—Pt, Point Cloates; Ab, Albany; Ea, Eucla; CB, Cape Lords; A, Adelaide; Re, Robe; P, Portland; [illegible], Cape Otway; W. P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Sg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast, fine with E. and S.E. winds; on south coast, cloudy and threatening, with westerly winds; sea smooth. Rainfall: Albany, 0·11. Extremes of barometers and temperature: 30·24 and 48°; Carnarvon, 20·01 and 74°.

South Australia.—Generally fine and cold; cloudy and light rain in places on coast, winds light, N. and E.; inland, S.E. Raining at Eucla and M'Donnell Bay, at the latter two points of rain have fallen; heavy dew at Adelaide. Extremes of barometers and temperature: Alice Springs, 30·28; Port Darwin, 29·88 and 82°; and Adelaide, 42°

Victoria.—Generally raining and overcast, with light north to west winds, fallen barometers, and moderate sea; misty rain at Capes Schanck and Otway, Ballarat, Echuca, Melbourne, and Wilson's Promontory. The last place reports having rain in night measuring one and a-half inch; Horsham and Echuca, 0·13 and 0·40 of rain respectively. Extremes of barometers and temperature: Cape Schanck, 30·11; Wilson's Promontory, 30·01; Horsham, 59°; and Portland, 50°.

Tasmania.—Generally cloudy and threatening, with easterly winds in north, and calm in south, light rain at Low Heads; moderate sea in Straits; fog and hoar frost on east coast. Extremes of barometers and temperature: Hobart, 30·17 and 42°; Circular Head, 30·09 and 55°.

New Zealand.—Generally fine, barometers uniform at 30·70, winds light from south, and calm.

New South Wales.—Generally raining, gloomy, and threatening. Winds: On coast, west and southerly; inland, from north to east, and calm. Barometers falling, and sea smooth. It was raining at 20 stations this morning, the majority being on the western slope of the mountains, and a few on the coast north of Sydney. Yesterday's rain was general from Moree southwards to Orange. The heaviest fall took place in the district around Coonamble, from 1 to 2 inches having been recorded at seven stations in the locality. The temperature generally is still very mild, and much fog, mist, and dew prevalent. Thunderstorms occurred last night at Carcoar and Walgett. Clarence reports 11 feet of water on the bar at high tide. Extra stations: Bundarra, max. 63°, min. 52°, rainfall 0·41, and still raining; Morangarell, max. 65°, min. 54°, rainfall 0·01, and threatening; Warrah, max. 65°, min. 54°, rainfall 1·85, and threatening. (For further particulars see map.)

Queensland.—In south cloudy, in north fine; winds from south to east, and sea moderate. Rainfall: Rockhampton, 0·50; Brisbane, 0·01. Extremes of barometers and temperature: Brisbane, 30·18 and 65°; Townsville, 29·84; and Cooktown, 86°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 18, fine, smooth sea, temperature 60°; Cape Otway, W.N.W., cloudy and misty, smooth sea, temperature 57°; Melbourne, N., 8, fine, but cloudy, temperature 57°; Cape Schanck, N.W., 13, cloudy and misty, smooth sea, temperature 60°; Wilson's Promontory, W.S.W., 8, cloudy and moderate, temperature 57°; Lakes Entrance, S.W., 13, cloudy, smooth sea, temperature 61°.

New South Wales.—Menindie, S., 14, fine, temperature 63°; Wentworth, S.W., 14, dull, temperature 54°; Deniliquin, calm, fine, temperature 69°; Eden, N.E., 14, cloudy, smooth sea, temperature 63°; Moruya, N.E., 14, rainy, smooth sea, temperature 62°; Cape St. George, N., 14, cloudy, threatening, smooth sea, temperature 63°; Sydney, N., 6, overcast and dull, smooth sea, temperature 64°; Newcastle, N.W., 14, dull, smooth sea, temperature 64°; Port Macquarie, N., 28, cloudy, smooth sea, temperature 71°; Clarence River, S.E., 14, fine, smooth sea, temperature 73°; Walgett, N.E., showery, thunderstorm all round, temperature 64°; Dubbo, N., showery, temperature 65°; Goulburn, S.E., 14, showery, temperature 62°; Young, E., raining steadily, 56 points rain registered up to 2 p.m.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 9 inches above summer level; at Hay, summer level; at Balranald, 2 feet below summer level. Murray: At Albury, 2 feet 6 inches above summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, low.

ASTRONOMICAL MEMORANDA FOR MAY 26.

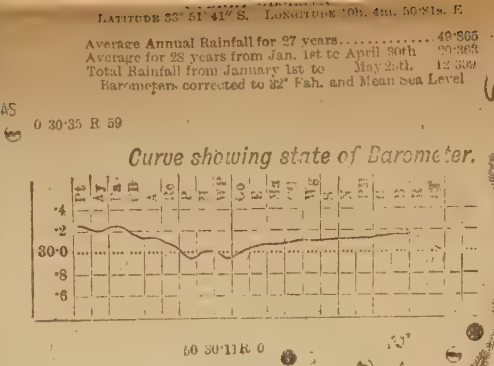
Sun rises at 6.54, sets at 5; Moon, —, 12.29 p.m.; Mercury, 5.26 a.m., 4.9 p.m.; Venus, 3.19 a.m., 2.50 p.m.; Mars, 1.6 p.m., 12.30 a.m.; Jupiter, 1.38 p.m., 1.26 a.m.; Saturn, 9.24 a.m., 7.16 p.m. New Moon, 4th; full moon, 18th.

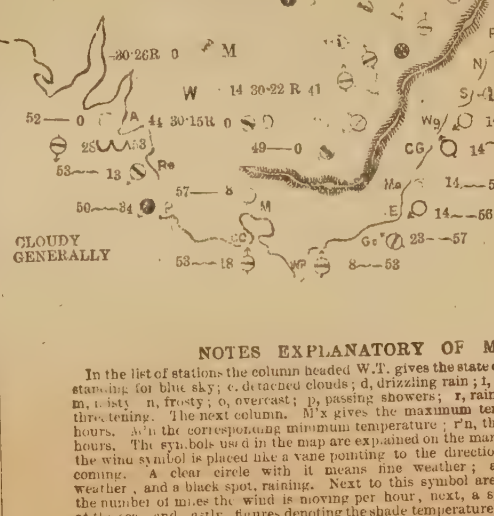
High water at Fort Denison, May 26: 1.16 a.m., 1.39 p.m.

STATIONS	WEA	MAX	MIN	RAIN
Albury	c	61	47	0·01
Armidale	g	62	50	0·55
Balranald	b	71	36	0·01
Bathurst	f	66	50	0·35
Bend'm'r	g	56	45	0·77
Bodalla ..	b	—	26	0·05
Bourke ..	r	69	55	0
C'md'n H	c	70	58	0
C. St. Geo	b	63	—	0
Carcoar ..	f	57	50	0·46
Casino ..	r	78	57	0·16
Cassilis ..	r	59	53	0·22
Clarence	c	76	64	0·04
C'nd'b'lin	f	63	49	0·14
Cooma ..	c	63	33	0·03
Coonab'n	g	60	55	0·78
C'nam ble	g	—	—	0
Cowra ..	r	58	40	0·73
Deniliq'n	g	68	39	0
Dubbo ..	c	65	56	0·30
Eden	b	64	52	0
Euston ..	b	71	32	0
Forbes ..	f	61	51	0·46
Gl'n Inn's	r	72	36	0·97
Goulburn	g	59	47	0·21
Grafton ..	o	77	59	0·18
Ea.				
Gulgong	g	55	49	0·51
Gunned'h	c	67	53	0·72
Hay	g	63	39	0
Hill End	–	—	—	–
Inverell ..	o	68	54	1·02
Kiandra	c	50	38	0·15
Lismore	–	—	—	–
Maitland	f	65	53	0·04
Marsdens	f	64	55	0
Menindie	g	64	46	0
Molong ..	o	58	44	0·75
Moree ..	g	74	56	0·79
Moruya ..	b	67	48	0·06
Moss Vale	b	56	48	0·03
Mt. Hope	b	56	51	0
M. Vict'ria	g	59	48	0·12
Mudgee ..	g	60	49	1·00
M'rr'm'bh	c	56	51	0·06
M'rr'r'ndi	g	62	52	0·34
Mus'br'k	c	69	46	0·06
Narrabri	c	65	48	1·64
Newcastle	g	66	55	0·62
Nowra ..	b	67	47	0·08
Orange ..	c	55	48	1·31
Picton ..	f	62	46	0·00
P. M'q'rie	g	77	54	0·16
P. St'ph'n	c	78	57	0·10
Q'nbeyan	c	55	46	0·32
Quirindi	g	64	55	0·53
Singleton	g	60	51	0·01
SYDNEY ..	f	66	54	0·03
Tamw'rth	g	66	50	0·64
Taralga ..	c	53	43	0·19
Taree	b	65	55	0·16
T'nt'rfield	–	—	—	–
Wagga ..	c	64	46	0
Walcha ..	g	58	43	0·30
Walgett ..	g	68	50	0·53
W'ntw'rth	b	66	37	0
Wilcannia	c	—	—	0
W'll'ng'ng	b	67	53	0
Young ..	g	59	53	0·60

LATITUDE 33° 51′ 41″ S. LONGITUDE 151° 4m. 50·81s. E.

Average Annual Rainfall for 27 years ..... 49·865
Average for 28 years from Jan. 1st to April 30th 20·363
Total Rainfall from January 1st to May 26th 12·359
Barometers corrected to 32° Fah. and Mean Sea Level





NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, rain; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; z, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ie, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay, Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River, B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine; on west coast, light east winds; on south coast, westerly winds and calm; sea moderately smooth, and no rain fallen. Extremes of barometers and temperature: Esperance Bay, 30·27 and 45°; Cossack, 29·90; and Carnarvon 76°.

South Australia.—Generally cloudy and gloomy south of Burra, with showery weather on parts of coast, and westerly winds. Cape Borda reports rather stormy, squally, south winds, and rough sea; inland and in Northern territory, fine and cold, with S.E. winds. Rainfall: M'Donnell Bay, 0·02; Robe, 0·03; Alice Springs, 0·08; Port Lincoln, 0·14; and Adelaide, heavy dew. Extremes of barometers and temperature: Alice Springs, 30·35; Port Darwin, 29·88; Daly Waters, 81°; and M'Donnell Bay, 52°.

Victoria.—Generally cloudy and gloomy, with rain in places. Winds fresh, north, and westerly, barometers fallen, and sea moderately smooth. Rainfall: Wilson's Promontory, 0·06; Cape Otway, 0·03; Horsham, 0·01; and Portland, 0·07; at the two last-mentioned places it was still raining at 9 a.m. Extremes of barometers and temperature: Horsham, 30·09 and 59°; Cape Otway, 29·81; and Ballarat and Omeo, 48°.

Tasmania.—Generally cloudy and gloomy, with variable winds and calms, and rough sea on north and east coasts. Rainfall: Low Heads, 0·24; Falmouth, 0·59; Hobart, 0·17, and foggy. Southport, 0·27, and passing showers at 9 a.m. this morning. Extremes of barometers and temperature: Low Heads, 29·88 and 48°; Southport, 29·73; and Circular Heads, 55°.

New Zealand.—Generally fine, with variable winds and calm, and barometers continuing high; Russell and Bluff, 30·6; Wellington, 30·70.

New South Wales.—Generally cloudy, gloomy, and unsettled weather. Showery, and light misty rain in a few scattered places near mountains N.W. of Sydney. Dense fog at Sydney, and at seven other stations situated in a line due west of it to Condobolin, a distance of over 200 miles. Yesterday's rain was general in that part of the colony situated to east of a line joining Walgett in north, to Albury in south. The heaviest fall took place about Narrabri and Orange, 13 stations in those localities reporting from ¾ to 1½ inch rain. Winds: Generally light from north to west, and calm in places. Barometers fallen on coast, risen slightly inland. Sea smooth. Extra stations: Bundarra, max. 61°, min. 53°, rain 1·15, calm and cloudy; Morangarell' max. 62°, min. 51°, rain 0·09, and foggy; Warrah, max. 64°, min 53°, rain 0.42, calm and dull. (For further particulars see map.)

Queensland.—Showery in south, with rough sea; fine in north, with moderate sea. Winds: Light, south and south-east. Rainfall: Brisbane, 0·69; Cape Moreton, 0·05; Rockhampton, 0·16. Extremes of barometers and temperature: Brisbane, 30·17 and 67°; Townsville, 29·83; and Cooktown, 86°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.S.W., 34, squally and fine, sea smooth, temperature 53°; Cape Otway, W., 18, cloudy and misty, temperature 53°; Melbourne, W., 13, cloudy and gloomy, temperature 51°; Cape Schanck, W.N.W., 23, passing showers, sea rough, temperature 60°; Wilson's Promontory, W., 34, heavy showers, sea rough, temperature 49°.

New South Wales.—Menindie, calm, fine, temperature 61°; Wentworth, S.W., fine and clear, temperature 57°; Deniliquin, calm, fine and clear, temperature 63°; Eden, S.E., 14, fine but cloudy, sea smooth, temperature 62°; Cape St. George, N.N.W., 28, fine, sea smooth, temperature 68°; Sydney, N., 2, fine but cloudy, sea smooth, temperature 67°; Newcastle, N.W., 14, fine, cloudy, sea smooth, temperature 69°; Port Macquarie, S.W., 14, dull and dull, sea moderate, temperature 70°; Clarence River, N., 14, rain, temperature 66°; Dubbo, S.W., fine but cloudy, temperature 67°; Goulburn, N.W., fine, temperature 62°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 6 inches above summer level; at Hay, 13, summer level; at Balranald, 13, summer level. Murray: At Albury, 1 foot 3 inches above summer level; at Euston, low. Darling: At Wentworth, below summer level; at Poon-carrie, low; at Menindie, low; at Wilcannia, low; at Bourke, risen 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR MAY 27.

Sun rises at 6.55, sets at 4.59; Moon, 12·33, 1.3 p.m.; Mercury, 5.31 a.m., 4.10 p.m.; Venus, 3.20 a.m., 2.49 p.m.; Mars, 1.3 p.m., 12.28 a.m.; Jupiter, 1.34 p.m., 1.22 a.m.; Saturn, 9.20 a.m., 7.12 p.m. New Moon, 4th; full moon, 18th.

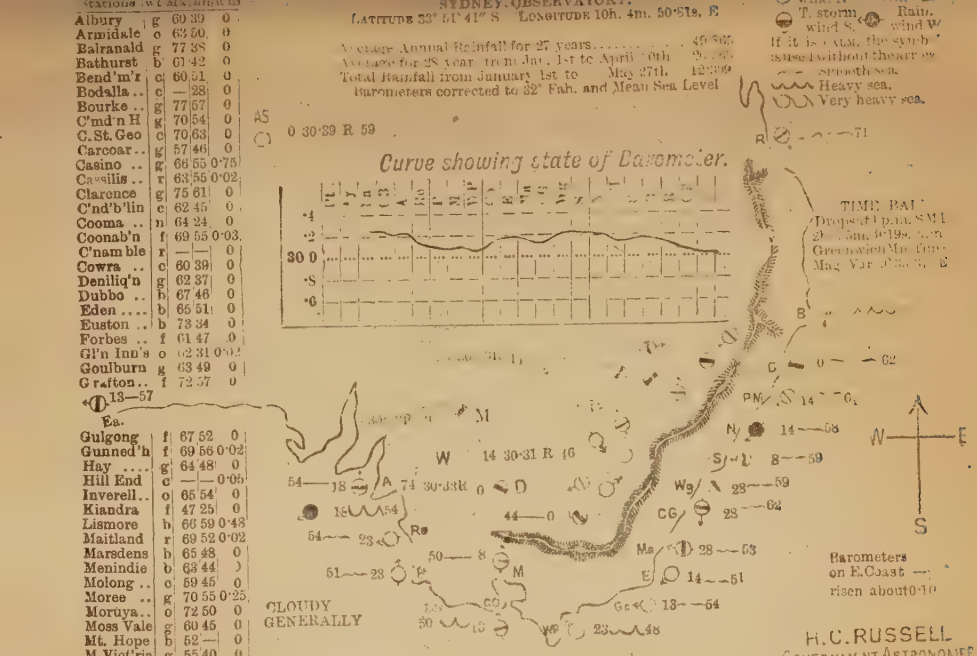
High water at Fort Denison, May 27: 2.8 a.m., 2.37 p.m.

STATIONS.	W.T.	M'x.	M'n.	Rain.
Albury	g	60	39	0
Armidale	o	63	50	0
Balranald	g	77	38	0
Bathurst	b	61	42	0
Bend'm'r	c	60	51	0
Bodalla ..	c	—	28	0
Bourke ..	g	77	57	0
C'md'n H	g	70	54	0
C. St. Geo	c	70	63	0
Carcoar ..	g	57	46	0
Casino ..	g	66	55	0·75
Cassilis ..	r	63	55	0·02
Clarence	g	75	61	0
C'nd'b'lin	c	62	45	0
Cooma ..	n	64	24	0
Coonab'n	f	69	55	0·03
C'nam ble	r	—	—	0
Cowra ..	c	60	39	0
Deniliq'n	g	62	37	0
Dubbo ..	b	67	46	0
Eden	b	65	51	0
Euston ..	b	73	34	0
Forbes ..	f	61	47	0
Gl'n Inn's	o	62	31	0·02
Goulburn	g	63	49	0
Grafton ..	f	72	57	0
Gulgong	f	67	52	0
Gunned'h	f	69	56	0·02
Hay	g	64	48	0
Hill End	c	—	—	0·05
Inverell ..	o	65	54	0
Kiandra	f	47	25	0
Lismore	b	66	59	0·43
Maitland	r	69	52	0·02
Marsdens	b	65	48	0
Menindie	b	63	44	0
Molong ..	c	59	45	0
Moree ..	g	70	55	0·25
Moruya ..	o	72	50	0
Moss Vale	g	60	45	0
Mt. Hope	b	52	—	0
M. Vict'ria	g	55	40	0
Mudgee ..	f	70	41	0
M'r'm'bh	b	83	43	0
M'r'r'ndi	g	64	55	0
Mus'lbr'k	r	71	45	0·38
Narrabri	f	70	49	0·08
Newcastle	r	72	57	0·01
Nowra ..	-	—	—	..
Orange ..	g	57	40	0·01
Picton ..	c	67	43	0
P. M'q'rie	g	71	54	0
P. St'ph'n	c	81	58	0
Q'nbeyan	b	59	43	0
Quirindi	g	61	52	0
Singleton	r	60	56	0·45
SYDNEY ..	g	69	55	0
Tamw'rth	b	69	52	0·04
Taralga ..	c	61	35	0
Taree	g	70	57	0·04
T'nt'rfield	g	68	49	0·03
Wagga ..	f	66	34	0
Walcha ..	f	62	48	0
Walgett ..	r	69	59	0·12
W'ntw'rth	b	69	39	0
Wilcannia	c	—	—	0
W'll'ng'ng	c	72	55	0
Young ..	b	69	40	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 45·85
Average for 28 years from Jan. 1st to April 30th 9·46
Total Rainfall from January 1st to May 27th 12·39
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b signifying fair blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, snowy; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; L, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and threatening; on west coast, fresh north to east winds; on south coast, calm; sea moderate, and no rain fallen. Extremes of barometers and temperature: Esperance Bay, 30·25 and 46°; Carnarvon, 29·92 and 72°. Barometers at Perth and Albany, 30·05 and 30·10 respectively.

South Australia.—On south coast, cloudy and gloomy, with light rain in places, fresh north to west winds, and rough sea. Cape Borda: Squally, west wind, passing showers, and rough sea. Rainfall: Generally along coast, from 2 to 6 points. Inland and in Northern territory: Generally fine and cold, with light S.E. winds and calm. Extremes of barometers and temperature: Alice Springs, 30·39; Port Darwin, 29·88 and 82°; and M'Donnell Bay, 48°.

Victoria.—Generally cloudy, gloomy, and cold, with fresh, squally north and west winds, and rough sea. Misty on coast, hoar frost inland. Rainfall: Along the coast generally, from 2 to 10 points. Extremes of barometers and temperature: Ballarat, 30·20 and 44°; Wilson's Promontory, 30·07; and Horsham, 57°.

Tasmania.—North coast: Showery, with squally N. and W. winds, rough sea. East coast: Cloudy and gloomy, with strong, squally, westerly winds, and rough sea. Rainfall generally from 8 to 30 points. Extremes of barometers and temperature: Low Heads, 30·03; Southport, 29·75; and temperature generally, 50° and 52°.

New Zealand.—In south, generally fine, with northerly winds. In extreme north, passing showers from S.E. Barometers now fallen; extremes read: In north, 30·6; in south, 30·2.

Queensland.—Generally gloomy and raining, with southerly winds, fallen barometers, and moderate sea. Cape Moreton: Passing showers from east, with rough sea. Cooktown: Misty, rain. Rainfall: Brisbane, 0·45; Rockhampton, 0·31. Extremes of barometers and temperature: Brisbane, 30·15 and 65°; Townsville, 29·75; and Cooktown, 85°.

New South Wales.—Generally cloudy and gloomy, with very light variable winds and calm, risen barometers, and moderate sea. 18 stations report light rain fallen, principally on the Hunter River, and beyond the Mountains as far as Walgett; but all north of Sydney, and at some of these it was still raining at 9 a.m. this morning. Fog prevails along the western slope of the range from Wagga in south to Bundarra in north. Mist and frost is reported in places. Extra stations: Bundarra, max. 68°, min. 53°, calm, cloudy, and foggy; Morangarell, max. 66°, min. 41°, fine and clear; Warrah, max. 61°, min. 51°, calm, and raining slightly. (For further particulars see map.)

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 34, threatening, sea smooth, temperature 58°; Cape Otway, N.W., 8, misty, sea smooth, temperature 55°; Melbourne, N.W., 13, cloudy, temperature 58°; Cape Schanck, N.W., 23, cloudy and misty, sea rough, temperature 55°; Lakes' Entrance, N., 8, fine sea smooth, temperature 58°.

New South Wales.—Menindie, calm, fine, temperature 61°; Wentworth, S.W., fine and clear, temperature 52°; Deniliquin, calm, fine, temperature 63°; Eden, S.E., 14, fine, light E., sea temperature 58°; Moruya, N.E., 14, cloudy and gloomy, sea smooth, temperature 62°; Cape St. George, S.S.W., 14, cloudy, moderate, temperature 62°; Sydney, calm, cloudy and misty, sea smooth, temperature 60°; Newcastle, W., 14, dull, sea smooth, temperature 61°; Port Macquarie, S., 14, cloudy, sea moderate, temperature 72°; Dubbo, calm, fine but cloudy, temperature 61°; Goulburn, N.W., dull, temperature 61°.

STATE OF RIVERS.

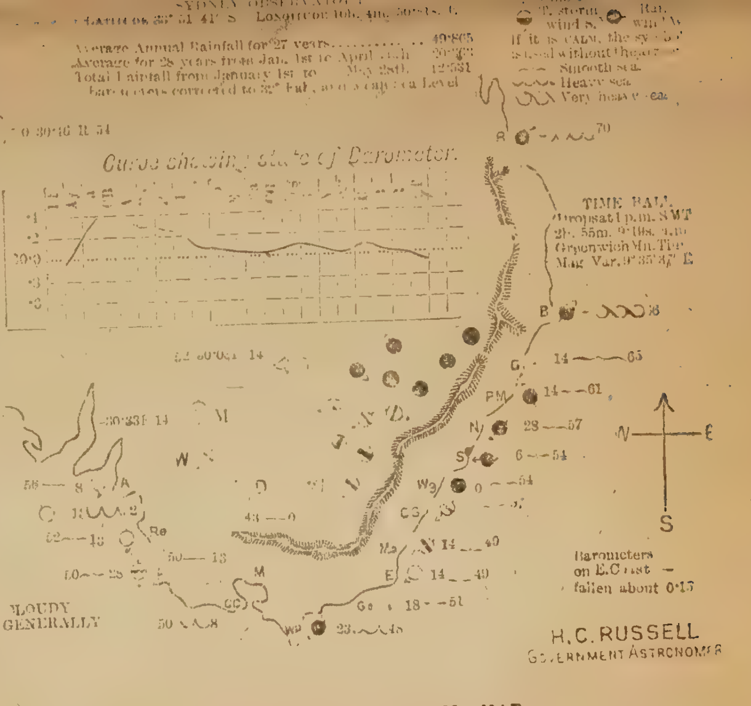
Murrumbidgee: At Wagga, 1 foot 5inches above summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, 1 foot above summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, 9 inches above summer level.

ASTRONOMICAL MEMORANDA FOR MAY 28.

Sun rises at 6.55, sets at 4.59; Moon, 1·26 a.m., sets at 1.36 p.m.; Mercury, 5.35 a.m., 4.11 p.m.; Venus, 3.22 a.m., 2.48 p.m.; Mars, 12.59 p.m., 12.25 a.m.; Jupiter, 1.31 p.m., 1.19 a.m.; Saturn, 9.17 a.m., 7.9 p.m. New Moon, 4th; full moon, 18th.

High water at Fort Denison: 3.9 a.m., 3.40 p.m.

Stations	W.	Max.	Min.	R.
Albury	b	61	41	0
Armidale	r	60	45	0·82
Balranald	b	79	36	0
Bathurst	f	58	43	0·06
Bend'm'r	r	58	52	0·91
Bodalla ..	g	--	27	0
Bourke ..	g	75	51	0·13
C'md'n H	r	71	63	0·50
C. St. Geo	c	65	55	0
Carcoar ..	g	54	46	0
Casino ..	r	75	59	0·74
Cassilis ..	r	59	56	1·98
Clarence	g	75	65	0·02
C'nd'b'lin	g	59	36	0
Cooma ..	n	66	27	0
Coonab'n	r	60	54	1·17
C'namble	g	--	--	1·00
Cowra ..	c	58	49	0
Deniliq'n	h	68	39	0
Dubbo ..	b	61	48	0·08
Eden	b	65	47	0
Euston ..	c	80	30	0
Forbes ..	o	55	46	0
Gl'n Inn's	r	65	29	2·60
Goulburn	g	58	40	0
Grafton ..	r	73	61	1·72
Gulgong	g	84	60	0
Gunned'h	-	--	--	--
Hay	b	69	39	0·34
Hill End	c	--	--	0·14
Inverell ..	r	67	55	2·20
Kiandra	n	50	27	0
Lismore	r	75	65	1·00
Maitland	r	63	56	0·86
Marsdens	g	60	42	0
Menindie	b	66	46	0
Molong ..	g	66	42	0
Moree ..	r	62	56	0·63
Moruya ..	g	--	47	0
Moss Vale	o	57	46	0
Mt. Hope	g	51	49	0
M. Vict'ria	r	56	43	0·19
Mudgee ..	c	64	43	0·32
M'rr'm'bh	c	72	43	0
M'rr'r'ndi	r	61	53	0·84
Mus'lbr'k	r	67	52	1·04
Narrabri	r	59	51	1·40
Newcastle	r	67	56	0·80
Nowra ..	-	--	--	-
Orange ..	c	55	41	0
Picton ..	g	64	44	0·05
P. M'q'rie	r	73	59	0·19
P. St'ph'n	r	55	--	0·75
Q'nbeyan	g	54	46	0
Quirindi	r	72	41	0·39
Singleton	r	62	56	1·20
Sydney ..	r	61	55	0·22
Tamw'rth	r	65	55	0·55
Taralga ..	g	59	48	0
Taree	r	60	61	0·47
T'nt'rfield	r	65	55	3·00
Wagga ..	f	61	34	0
Walcha ..	r	58	46	0·68
Walgett ..	r	63	53	1·06
W'ntw'rth	c	67	38	0
Wilcannia	b	--	--	0
W'll'ng'ng	r	69	53	0·07
Young ..	g	70	42	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W. T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, ugly threatening. The next column, M'x gives the maximum temperature for previous 24 hours; Mn the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In south parts cloudy and gloomy, with easterly winds, fallen barometers, and moderate sea; no rain fallen. Extremes of barometers and temperature: Esperance Bay, 30·20 and 48°; Perth, 29·92 and 64°.

South Australia.—On south coast generally cloudy, gloomy, and threatening, with light rain in places, south and east winds, risen barometers, and moderate sea. Rainfall: Generally along the coast, from 1 to 15 points. Inland and in Northern Territory: Fine and cold, with risen barometers and south-east winds. Extremes of barometers and temperature: Alice Springs, 30.46; Port Darwin, 29·89, and 77; M'Donnell Bay, 51°.

Victoria.—Generally overcast, gloomy, and light rain, with fresh south and west winds, and rough sea. Raining at Melbourne, Wilson's Promontory, Cape, Schanck, and Ballarat. Rainfall generally from 2 to 36 points. Extremes of barometers and temperature: Hamilton, 30·22 and 48°; Wilson's Promontory, 30·47 and 58° at Horsham.

Tasmania.—Generally fine, with fresh westerly winds. Sea moderate on west and rough on east coast. Rainfall generally from 2 to 25 points. Extremes of barometers and temperature: Low Heads, 30·15 and 48°; Falmouth, 30·07 and 45.

New Zealand.—Generally fine, with N.W. winds in south and S.E. wind in extreme north. Barometer fallen, and now reading: At Russell, 30·2; at Wellington, 30·5; and at Bluff, 30.

New South Wales.—In south and south-west parts generally fine and cold; in central parts cloudy and gloomy; in north-east parts raining steadily at 30 stations on both sides of the range. Yesterday's rain was confined almost exclusively to the same districts; 16 stations report little more or less than an inch, several two inches, and one (Tenterfield) three inches of rain. Winds very light and variable, calms in places. Barometers fallen generally, temperature still mild, and sea smooth. Extra stations: Lawrence, 120 points rain during night; Bundarra, max. 61° min. 55°, rainfall 1·62, and raining steadily; Morangarell, max. 60°, min. 41°, cloudy; Warrah, max. 64., min. 59°, rainfall 0·74, calm, dull, and raining steadily. (For further particulars see map.)

The telegraph stationmaster at Bourke at 7.47 p.m., reports:—Tilpa, calm, no rain; Wilcannia, calm, fine; Barringun, cloudy, 0·32 rain; Enangonia, fine, 0·45 rain, like more; Brewarrina, S.W., cloudy, 0·65 rain, river low; Goodooga, raining, 0·76, river beginning to rise; Angledool, 0·91 rain, and raining; Walgett, S.E. cloudy, 1·06 rain, river low; Mogil, raining, 1·08, river risen 12 feet; Mungindi, N.E., raining, 1·20, river risen 12 feet, looks like a flood. St. George reports 6·30 rain up to date; Currawildi, 3·00; Eulo, 0·47; Cunnamulla, 1·20; Inverell, 3·95, still raining steadily, river rising.

It will be seen that the rain has not been heavy in the Bourke district, but only on the Macintyre River and north of it in Queensland, and that the north-eastern tributaries of the Darling are rising, but so far there is no report of rain heavy enough to make a dangerous flood. 9 p.m., Sydney, drops rain, increasing southerly wind.

Queensland.—In south parts raining and gloomy, with north and north-east winds and high sea. In north fine, with S.E. winds and moderate sea. Rainfall: Brisbane, 1·53; Cape Moreton, 0·52; Rockhampton, 0·57; and Townsville, 0·80. Extremes of barometers and temperature: Rockhampton, 30·03; Townsville, 29·74; Brisbane, 66°; and Cooktown, 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S., 28, fine, but cloudy, sea smooth, temperature 53°; Cape Otway, S., 13, cloudy and misty, rough sea, temperature 53°; Melbourne, S., 13, fine but misty, temperature 51°; Cape Schanck, S., 13, cloudy and misty, sea smooth, temperature 55°; Wilson's Promontory, S.W., 23, squally, sea rough, temperature 52°; Lakes Entrance, W., 23, showery, misty, sea rough, temperature 54°.

New South Wales.—Menindie, S., 14, fine, temperature 55°; Wentworth, S.W., 14, cloudy, like rain, temperature 55°; Deniliquin, calm, cloudy and cold, temperature 62°; Moruya, S., 28, overcast and gloomy, sea moderate, temperature 59°; Cape St. George, S.S.W., 14, dull and cloudy, sea moderate, temperature 61°; Sydney, W.S.W., 10, raining, sea smooth, temperature 54°; Newcastle, S., 14, raining, sea moderate, temperature 56°; Port Macquarie, N., 14, raining, sea moderate, temperature 68°; Dubbo, E., fine, temperature 60°; Goulburn, calm, dull, temperature 62°.

At 9.30 p.m., Observer at Walgett reports: Began to rain here yesterday morning; two inches have fallen; River Barwon commencing to rise. Mogil reports three inches rain; River there up 14 feet 6 inches, and rising; all the creeks up. At Mungindi 5 inches rain; river 15 feet and rising. Goodooga, 2·83 inches rain; now clearing up, but river is rising. Angledool reports 3·50 inches rain. Pilliga, 3·20 inches; still raining.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 3 inches above summer level; at Hay, summer level; at Balranald, below summer level. Murray: At Albury, 1 foot 2 inches above summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR MAY 29.

Sun rises at 6.56, sets at 4.58; Moon, 2.22 a.m., sets at 2.10 p.m.; Mercury, 5.40 a.m., 4.13 p.m.; Venus, 3.23 a.m., 2.47 p.m.; Mars, 12.56 p.m., 12.23 a.m.; Jupiter, 1.27 p.m., 1.15 a.m.; Saturn, 9.14 a.m., 7.6 p.m. New Moon, 4th; full moon, 13th.

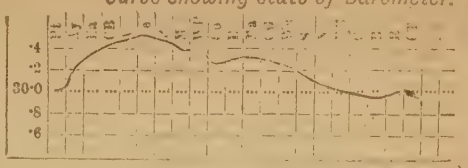
High water at Fort Denison: 4.14 a.m., 4.47 p.m.

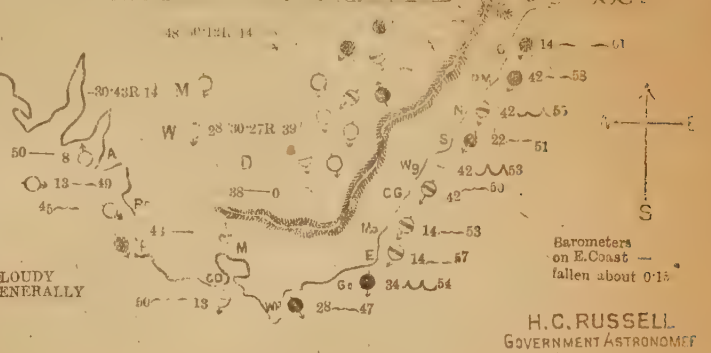
Albury	n	58 43		0
Armidale	r	54 51		0
Balranald	b	69 39		0
Bathurst	g	52 41		0
Bend'n'r	r	55 51	0·81	
Bodalla ..	b	— 29		0
Bourke ..	b	69 44		0
C'mdn H	r	69 58	1·20	
C. St. Geo	c	89 58	0·30	
Carcoar ..	g	52 48		0
Casino ..	n	66 59	1·00	
Cassilis ..	g	56 51	1·01	
Clarence	r	75 63	1·15	
C'nd'b'lin	c	58 38		0
Cooma ..	c	59 34	0·04	
Coonab'n	g	57 46	0·24	
C'namble	r	— —	0·50	
Cowra ..	b	55 40		0
Denilliq'n	b	60 30		0
Dubbo ..	b	58 45		0
Eden	u	58 55	0·04	
Euston ..	b	65 32		0
Forbes ..	c	58 46		0
Gl'n Inn's	r	59 31	0·75	
Goulburn	b	53 30		0
Grafton ..	r	75 61	0·60	
Gulgong	r	62 46	0·15	
Gunned'h	–	— —	..	
Hay	b	66 34		0
Hill End	b	— —		0
Inverell ..	o	61 51	0·62	
Kiandra	s	47 25		0
Lismore	r	62 —	0·84	
Maitland	r	60 53	1·63	
Marsdens	b	59 45		0
Menindie	b	66 43		0
Molong ..	u	55 46		0
Moree ..	r	64 47	0·72	
Moruya ..	b	52 47		0
Moss Vale	g	52 41		0
Mt. Hope	f	50 —		0
M. Vict'ria	b	58 47	0·05	
Mudgee ..	r	61 42	0·20	
M'rr'm'bh	b	92 43		0
M'rr'ndi	u	57 46	2·12	
Mus'br'k	b	68 47	1·30	
Narrabri	c	65 46	1·62	
Newcastle	o	63 45	1·35	
Nowra ..	–	— —		–
Orange ..	c	49 35		0
Picton ..	g	58 46		0
P. M'q'rie	r	67 58	0·60	
P. St'ph'n	r	78 55	3·10	
Q'nbeyan	b	52 45		0
Quirindi	g	72 52	1·07	
Singleton	u	60 51	1·60	
Sydney ..	r	59 51	1·72	
Tamw'rth	o	60 51	0·79	
Taralga ..	b	69 39		0
Taree	r	64 58	1·25	
T'nt'rfield	g	59 49	1·11	
Wagga ..	c	61 38		0
Walcha ..	r	58 45	0·46	
Walgett ..	r	55 49	0·19	
W'ntw'rth	b	61 35		0
Wilcannia	b	— —		0
W'll'ng'ng	c	66 52		0
Young ...	b	59 40		0

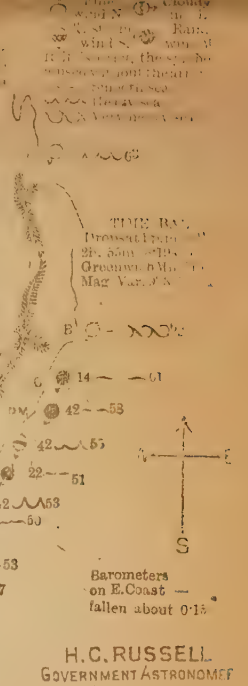
SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 42″ S. LONGITUDE 10h. 4m. 49·9s. E.

Average Annual Rainfall for 27 years ..... 49·8
Average for 28 Years from Jan. 1st to April 30th ..... 5··
Total Rainfall from January 1st to May 29th ..... 44·43
Barometers corrected to 32° Fah., and Mean Sea Level.







Barometers on E.Coast — fallen about 0·15

H. C. RUSSELL.
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature. Ru, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather, a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Eu, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W'P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay, Wg, Wollongong, S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and gloomy, with light variable winds, fallen barometers, and moderate sea. Rainfall: Carnarvon 0·01, Geraldton 0·16. Extremes of barometers and temperature: Perth 30·10, Carnarvon 29·92 and 74°, and Esperance Bay 54°.

South Australia: Generally fine and cold, with light scattered clouds and light rain in places. Winds generally southerly and sea smooth. Raining at M'Donnell Bay, and one point fallen. Extremes of barometers and temperature: Alice Springs 30·49, Port Darwin 29·96 and 77°, and Robe 45°.

Victoria.—Generally overcast, gloomy, and light misty rain, with fresh southerly winds, rising barometers, and moderate sea; raining at Portland, Wilson's Promontory, Omeo, Ballarat, Lake Entrance. Extremes of barometers and temperature: Cape Otway, 30·48; Omeo, 30·37; Cape Schanck, 54°; and Ballarat, 29°. Misty on coast, hoar frost inland.

Tasmania.—Generally cloudy, gloomy, and raining, with southerly winds, very high barometers, and rough sea. Extremes of barometers and temperature: Hobart, 38·49 and 43°, and snow during night; Southport, 30·52, and light misty rain; and Circular Heads, 46°.

New Zealand.—In north, generally fine, with strong S.E. and N.W. winds; in extreme south, showery from S.W. Barometers: In south, 30·3 and 30·4; in south, 30·1.

New South Wales.—In south and south-west parts generally fine and very cold. In north and north-east parts generally heavy rain on both sides of the Range, from the sea to Walgett and Coonamble in the west. During the last 24 hours heavy rain is reported from 20 stations scattered over the same districts; most of them record over an inch, and some two or three inches, the heaviest fall being at Port Stephens. Barometers have risen and temperature fallen generally. Winds strong southerly, and sea heavy. Kiandra reports light fall of snow during night, and Albury sharp frosts. Extra Stations: Bundarra, maximum 59°, minimum 44°, fine and clear; Warrah, maximum 63°, minimum 56°, rainfall 1·30, dull and threatening. For further particulars see map.

Queensland.—Generally fine, with south to west winds, and rough sea. Rainfall: Brisbane, 0·82; Cape Moreton, 0·27; Rockhampton, 0·02. Extremes of barometers and temperatures: Rockhampton, 30·05 and 63°; Townsville, 29·82 and 85°.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, S.W., 14, fine, cool, temperature 54°; Wentworth, S., 14, fine, clear, temperature 53°; Deniliquin, calm, fine, temperature 61°; Eden, S.W., 20, showery, little sea, temperature 54°; Cape St. George, S., 12, showery, heavy sea, temperature 61°; Sydney, S.S.W., 20, showery (South Head line interrupted), temperature 56°; Newcastle, S.S.E., 30, stormy, heavy sea; Port Macquarie, S.S.W., 40, thick, raining, heavy sea, temperature 65°; Dubbo, calm, showery, temperature 58°; Goulburn, S.E., cloudy, temperature 56°. At 10.30 a.m. Sunday Bourke reports: River 6 feet 6 inches at Walgett. Mogil Mogil river 16 feet 6 inches and rising. Mungindi, total rain 5·12, river 15 feet 6 inches and rising. Gundiwindi, river 12 feet and rising. Bourke, river not begun to rise yet.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 3 inches above summer level; at Hay, summer level; at Balranald, below summer level. Murray: At Albury, 1 foot above summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, 9 inches above summer level; rising slowly.

ASTRONOMICAL MEMORANDA FOR MAY 31.

Sun rises at 6.57, sets at 4.58; Moon, 4.17 a.m., sets at 3.21 p.m.; Mercury, 5.50 a.m., 4.17 p.m.; Venus, 3.25 a.m., 4.45 p.m.; Mars, 12.50 p.m., 12.17 a.m.; Jupiter, 1.19 p.m., 1.8 a.m.; Saturn, 9.7 a.m., 6.59 p.m. New Moon, 4th; full moon, 18th.

High water at Fort Denison: 6·16 a.m., 6·43 p.m.

Stations	W.T.	Max.	Min.	R'fall
Albury	n	50	31	0
Armidale	b	56	45	0·01
Balranald	n	71	29	0
Bathurst	b	55	29	0
Bend'm'r	c	58	45	0
Bodalla ..	b	—	31	0
Bourke ..	b	75	49	0
C'md'n H	–	—	—	–
C. St. Geo	b	58	55	0·58
Carcoar ..	n	50	36	0
Casino ..	g	70	52	0
Cassilis ..	f	54	41	0·08
Clarence	c	66	56	0·13
C'nd'b'lin	b	59	39	0
Cooma ..	n	54	24	0
Coonab'n	g	61	41	0·05
C'nam ble	b	—	—	0
Cowra ..	n	54	35	0
Deniliq'n	n	64	25	0
Dubbo ..	b	62	36	0
Eden	–	—	—	–
Euston ..	b	72	20	0
Forbes ..	n	57	36	0
Gl'n Inn's	b	53	28	0·75
Goulburn	n	56	24	0
Grafton ..	g	72	—	0
Gulgong	n	95	45	0·13
Gunned'h	g	64	49	0
Hay	b	64	45	0
Hill End	n	—	—	0
Inverell ..	c	62	41	0·09
Kiandra	n	48	14	0
Lismore	o	70	56	0·04
Maitland	g	61	45	0
Marsdens	n	60	38	0
Menindie	b	57	39	0
Molong ..	g	65	32	0
Moree ..	g	71	51	0·05
Moruya ..	b	61	49	0
Moss Vale	–	—	—	0
Mt. Hope	b	46	—	0
M. Vict'ria	b	48	45	0
Mudgee ..	n	69	33	0·16
M'rr'm'bh	b	92	33	0
M'rr'n'di	n	53	43	0
Mus'll'br'k	b	62	37	0·02
Narrabri	c	65	46	0·02
Newcastle	b	62	47	0
Nowra ..	b	60	39	0·05
Orange ..	n	48	29	0
Picton ..	b	59	28	0
P. M'q'rie	g	63	51	0
P. St'ph'n	o	77	57	0·58
Q'nbeyan	b	51	32	0
Quirindi	u	66	50	0
Singleton	g	60	42	0
Sydney ..	b	59	44	0·35
Tam'w'rth	c	61	47	0
Taralga ..	n	64	27	0
Taree	g	64	51	0·35
T'nt'rfield	g	61	43	0·28
Wagga ..	n	61	25	0
Walcha ..	g	50	39	0·04
Walgett ..	b	62	49	0
W'ntw'rth	b	61	30	9
Wilcannia	b	—	—	0
W'll'ng'ng	b	63	44	0
Young ..	b	75	31	0

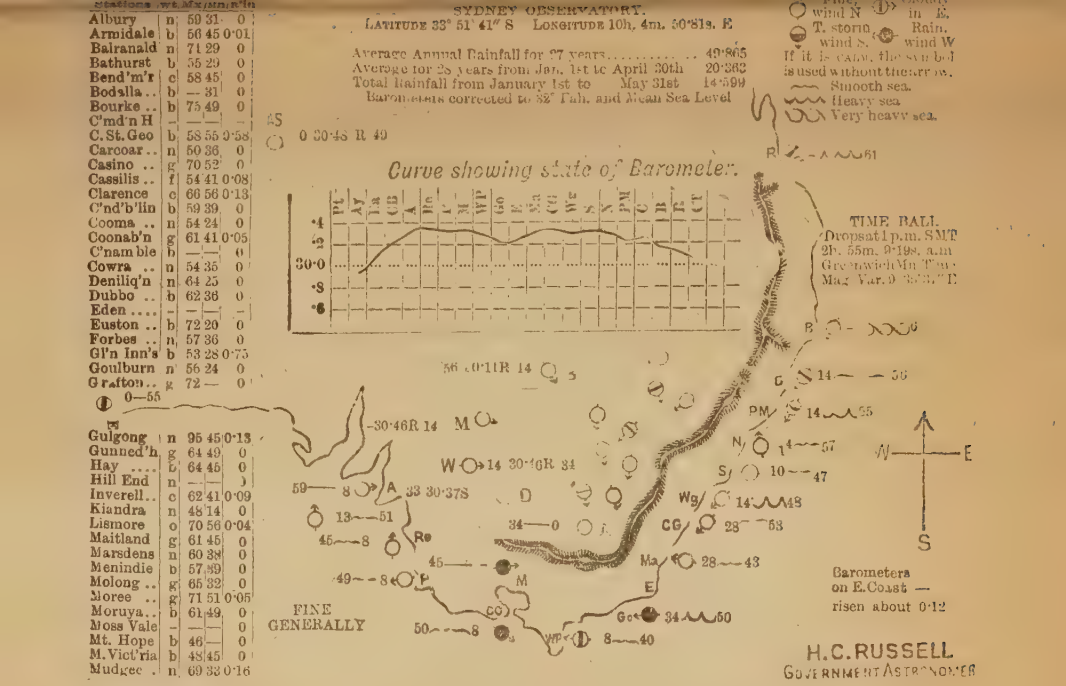
SYDNEY OBSERVATORY.

Latitude 33° 51′ 41″ S Longitude 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years..... 49·865
Average for 25 years from Jan. 1st to April 30th 20·362
Total Rainfall from January 1st to May 31st 14·599
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.

TIME BALL.
Drops at 1 p.m. S.M.T.
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° E. in 1890



Wind N in E.
T. storm wind S. Rain. wind W
If it is calm, the word is used without the arrow.
Smooth sea.
Heavy sea
Very heavy sea.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W'P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve embles one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and threatening on south coast, with fresh westerly winds and smooth sea. Rainfall: Albany, 0·53; Esperance Bay, 0·10. Barometers and temperature: Albany, 29·95 and 53°; Esperance Bay, 29·92 and 55°.

South Australia.—Generally fine and cold. On south coast light N. and E. winds. Inland S.E. winds and calms. Rainfall: Two points at M'Donnell Bay; dew and hoar frosts this morning at Adelaide. Gloomy west of Port Lincoln. Barometers fallen, and sea smooth. Extremes of barometers and temperature: Alice Springs, 30·48; Port Darwin, 30·00 and 70°; M'Donnell Bay, 40°.

Victoria.—Generally cloudy and gloomy, with light misty rain in places, light variable winds, and moderate sea; passing showers of misty rain at Omeo, Melbourne, and Cape Otway (the last-mentioned place reports dead calm sea); hoar frost prevails inland. Extremes of barometers and temperature: Melbourne, 30·37; Wilson's Promontory, 30·27; Horsham, 51·0; and Omeo, 35·0.

Tasmania.—Generally fine and clear, with light south and westerly winds, and rough sea; foggy at Hobart. Extremes of barometers and temperature: Southport, 30·34 and 43·0; Falmouth, 30·28 and 50°.

New Zealand.—Generally gloomy and showery, with northerly winds; on west coast, showery and rough sea. Barometers: In north, 30·2; and extreme south, 29·8, and showery.

New South Wales.—Generally fine and very cold, especially in southern parts, with light W. and S.W. winds, rising barometers, and moderate sea, though rough in places of coast. Since last report light rain is reported from 16 stations scattered over the north-eastern portion of the colony, but principally near the range. Extra Stations: Gabo Island, rainfall 0·25; Bundarra, maximum 64°, minimum 49°, calm and cloudy; Morangarell, maximum 58°, minimum 30°, calm, fine, and frosty; Warrah, maximum 59°, minimum 43°, dull and overcast. For further particulars see map.

Queensland.—Generally fine and clear, with light S.E. winds, and rough sea. Rainfall: Rockhampton, 0·01; Cape Moreton, 0·10. Extremes of barometers and temperature: Brisbane, 30·19 and 61°; Townsville, 29·87; and Cooktown, 81°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E., 8, cloudy, smooth sea, temperature 55°; Cape Otway, S.E., 8, fine, smooth, temperature 55°; Melbourne, S.S.W., 8, fine, temperature 54°; Lakes' Entrance, W.W., 13, fine, but cloudy, moderate sea, temperature 57°; Wilson's Promontory, W.N.W., 8, fine but cloudy, moderate sea, temperature 56°.

New South Wales.—Menindie, calm, fine and clear, temperature 56°; Wentworth, N., 14, clear, temperature 54°; Deniliquin, calm, fine, temperature 59°; Moruya, S., 14, fine, heavy sea, temperature 57°; Cape St. George, E.N.E., 28, fine, moderate sea, temperature 59°; Sydney, N.E., 4, fine and clear, smooth sea, temperature 57°; Newcastle, S., 28, fine, moderate sea, temperature 59°; Port Macquarie, S., 42, cloudy, heavy sea, temperature 67°; Clarence River, S., 14, showery, moderate sea, temperature 64°; Walgett, S.E., 14, fine, temperature 62°; Dubbo, E., fine, temperature 59°; Goulburn, calm, fine, temperature 53°. Goondiwindi (Macintyre River), reports over 6 inches rain in all, still raining, river high, every prospect of fair flood. Mungindi (Macintyre River), east cloudy, river 18 feet, rising. Mogil Mogil, calm, cloudy, river over its banks, rising fast. Walgett, Barwan rose rapidly yesterday; now about 16 feet 6 inches, rising rapidly. Angledool, reports weather fine. Narrabri, coming down, very high flood expected. Goodooga, river rising.

STATE OF RIVERS.

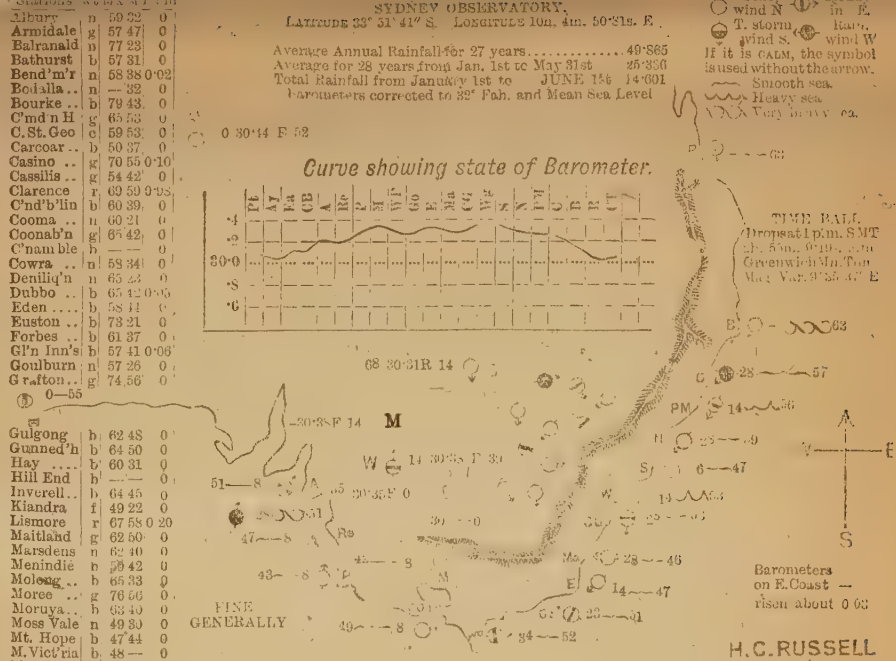
Murrumbidgee: At Wagga, 1 foot 3 inches above summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, 1 foot above summer level; at Euston, low. Darling: At Wentworth, 13 feet above summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, low.

ASTRONOMICAL MEMORANDA FOR JUNE 1.

Sun rises at 6.58, sets at 4.57; Moon, 5.17 a.m., sets at 4.1 p.m.; Mercury, 5.56 a.m., 4.20 p.m.; Venus, 3.27 a.m., 2.45 p.m.; Mars, 12.47 p.m., 12.15 a.m.; Jupiter, 1.15 p.m., 1.3 a.m.; Saturn, 9.3 a.m., 6.55 p.m. New Moon, 3rd; full moon, 16th.

High water at Fort Denison: 7.7 a.m., 7.31 p.m.

Stations		W.T.	Min	Max	Rain
Albury	n	59	32		0
Armidale	g	57	47		0
Balranald	n	77	23		0
Bathurst	b	57	31		0
Bend'm'r	n	58	38		0·02
Bodalla	n	—	32		0
Bourke	b	79	43		0
C'md'n H	g	65	53		0
C. St. Geo	c	59	53		0
Carcoar	b	50	37		0
Casino	g	70	55		0·10
Cassilis	g	54	42		0
Clarence	r	69	59		0·05
C'nd'b'lin	b	60	39		0
Cooma	n	60	21		0
Coonab'n	g	65	42		0
C'namble	b	—	—		0
Cowra	n	58	34		0
Deniliq'n	n	65	23		0
Dubbo	b	65	42		0·05
Eden	b	58	51		0
Euston	b	73	21		0
Forbes	b	61	37		0
Gl'n Inn's	b	57	41		0·06
Goulburn	n	57	26		0
Grafton	g	74	56		0
Gulgong	b	62	48		0
Gunned'h	b	64	50		0
Hay	b	60	31		0
Hill End	b	—	—		0
Inverell	b	64	45		0
Kiandra	f	49	22		0
Lismore	r	67	58		0·20
Maitland	g	62	50		0
Marsdens	n	62	40		0
Menindie	b	98	42		0
Moleag	b	66	33		0
Moree	g	76	56		0
Moruya	b	63	40		0
Moss Vale	n	49	30		0
Mt. Hope	b	47	44		0
M. Vict'ria	b	48	—		0
Mudgee	g	72	37		0
M'rr'm'bh	b	80	34		0
M'rr'ndi	f	55	45		0
Mus'br'k	b	69	37		0
Narrabri	c	63	43		0
Newcastle	b	66	54		0
Nowra	c	62	39		0
Orange	n	49	32		0
Picton	n	58	28		0
P. M'q'rie	c	65	52		0·72
P. St'ph'n	c	80	59		0
Q'anbeyan	n	49	33		0
Quirindi	b	66	51		0
Singleton	b	66	49		0
Sydney	h	58	45		0
Tamw'rth	b	67	44		0
Taralga	n	68	27		0
Taree	r	66	53		0·02
T'nt'rfield	g	60	43		0
Wagga	n	58	27		0
Walcha	g	55	39		0
Walgett	r	64	51		0
W'ntw'rth	c	64	33		0
Wilcannia	b	—	—		0
W'll'ng'ng	b	66	45		9
Young	n	75	35		0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds, d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Min the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; L, Eden; Ma, Moruya; C G Jervis Bay, Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In south parts gloomy and overcast, with light variable winds and calm, risen barometers and smooth sea. Rainfall: Esperance Bay, 0·07. No telegrams from north.

South Australia.—Generally cloudy and gloomy on south coast, with light rain in places, light north and north-east winds, fallen barometers, and smooth sea. Cape Borda reports: Misty, rain, strong squally north winds, and rough sea. Rainfall: Cape Borda, 0·14; Port Lincoln, 0·08; and Streaky Bay, 0·03. Inland and in northern territory fine and cold with light S.E. winds. Extremes of barometers and temperature; Alice Springs, 30·44; Port Darwin, 29·97 and 71°; and Macdonnell Bay, 40·

Victoria.—Generally fine and cold, with light north to east winds, almost steady barometers, and moderate sea. Misty and heavy dew on coast; hoar frost inland. Wilson's Promontory reports threatening weather, squally east wind, and three points rain. Extremes of barometers and temperature: Melbourne, 30·33 and 42°; Cape Schanck, 30·22 and 52°. Foggy and hoar frost at Omeo.

Tasmania.—Generally cloudy and cold, with fresh, variable winds and moderate sea. Foggy at Hobart, and heavy dew at Southport, but no rain. Extremes of barometers and temperature: Hobart, 30·39 and 41°; Circular Heads, 30·33 and 49°.

New Zealand.—Generally fine, with southerly winds. Cloudy at Bluff. Barometers: In extreme north and south, 30·1; at Wellington, 30·.

New South Wales.—Generally fine and frosty, with light southerly winds, risen barometers, and moderate to heavy sea. Light rain fallen at a few stations in north coast districts, heaviest at Port Macquarie and Clarence, where nearly an inch fell; and at 9 a.m. this morning it was showery at the mouths of Manning, Clarence, and Richmond Rivers, and at Walgett on the Darling. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·38; Forbes, 30·18; Bourke, 68°; and Kiandra, 26°. Extra Stations: Bundarra, maximum 67°, minimum 46°, fine and clear; Morangarell, maximum 59°, minimum 33°, calm, and frosty; Warrah, maximum 64°, minimum 49°, calm and threatening. For further particulars see map.

Queensland.—Generally fine, with light southerly winds and moderate sea. Cape Moreton reports cloudy weather and high sea. Rainfall: Cape Moreton, 0·26°; Rockhampton, 0·07. Extremes of barometers and temperature: Brisbane, 30·15 and 63°; Townsville, 29·89°; and Cooktown, 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.N.E., 18, fine, smooth sea, temperature 53°; Cape Otway, E., 8, fine, smooth sea, temperature 55°; Melbourne, W., 8, fine, temperature 59°; Cape Schanck, N.E., 8, fine, smooth sea, temperature 55°; Wilson's Promontory, N.E., 23, fine, squally, moderate sea, temperature 56°; Lakes' Entrance, S.E., 23, fine, moderate sea, temperature 53°.

New South Wales.—Menindie, calm, fine, temperature 57°; Wentworth, N., 14, fine, temperature 53°; Deniliquin, calm, fine, temperature 66°; Eden, S.E., 14, fine, light east sea, temperature 59°; Moruya, S., 42, fine, moderate sea, temperature 59°; Cape St. George, S., 14, cloudy, moderate sea, temperature 58°; Sydney, S., 8, fine, smooth sea, temperature 58°; Newcastle, S., 14, fine, smooth sea, temperature 61°; Port Macquarie, S., 28, unsettled, heavy sea, temperature 66°; Clarence River, S.W., 14, raining, heavy sea, temperature 62°; Walgett, S.E., 14, showery, temperature 57°; Dubbo, N.W., 14, fine, temperature 62°; Goulburn, calm, fine, temperature 55°.

Mr. Todd, South Australia, telegraphs:—"The postmasters at Baker and Strathalbyn felt a severe shock of earthquake this afternoon at 3.15 p.m. It was also felt at Hahndorf."

STATE OF RIVERS.

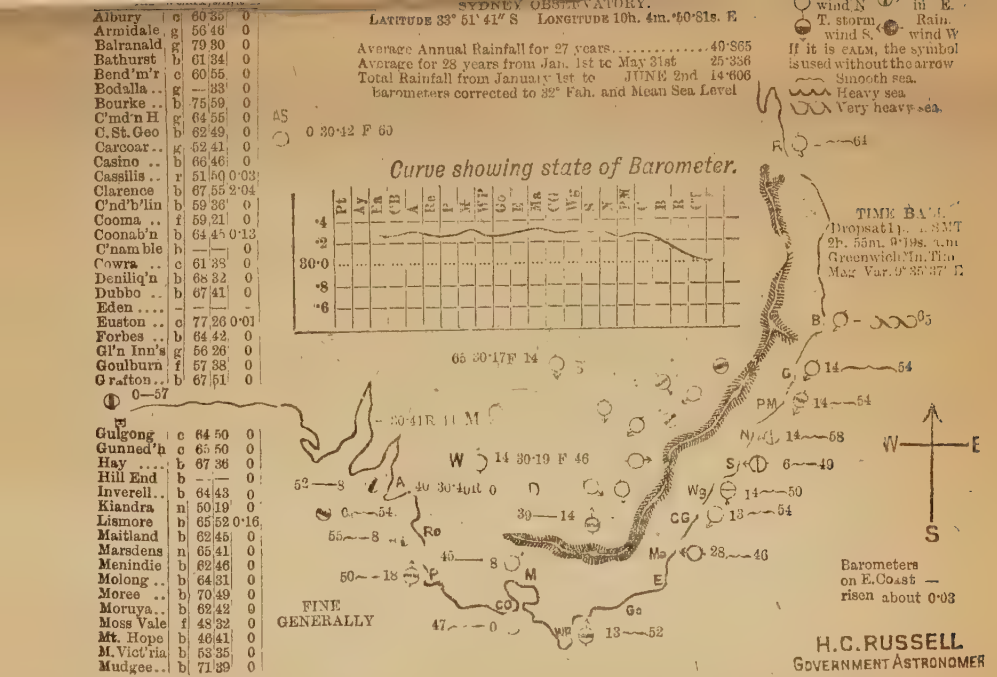
Murrumbidgee: At Wagga, 1 foot 3 inches above summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, 11 inches above summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, low.

ASTRONOMICAL MEMORANDA FOR JUNE 2.

Sun rises at 6.58, sets at 4.57; Moon, 6.19 a.m., sets at 4.47 p.m.; Mercury, 6.3 a.m., 4.23 p.m.; Venus, 3.28 a.m., 2.44 p.m.; Mars, 12.44 p.m., 12.13 a.m.; Jupiter, 1.11 p.m., 12.59 a.m.; Saturn, 8.59 a.m., 6.52 p.m. New Moon, 3rd; full moon, 16th.

High water at Fort Denison: 7.54 a.m., 8.17 p.m.

Albury	c	60	35	0
Armidale	g	56	46	0
Balranald	g	79	80	0
Bathurst	b	61	34	0
Bend'm'r	c	60	55	0
Bodalla ..	g	—	33	0
Bourke ..	b	75	59	0
C'md'n H	g	64	55	0
C. St. Geo	b	62	49	0
Carcoar ..	g	52	41	0
Casino ..	b	66	46	0
Cassilis ..	r	51	50	0·03
Clarence	b	67	55	2·04
C'nd'b'lin	b	59	36	0
Cooma ..	f	59	21	0
Coonab'n	b	64	45	0·13
C'nam ble	h	—	—	0
Cowra ..	c	61	33	0
Deniliq'n	b	68	32	0
Dubbo ..	b	67	41	0
Eden	–	—	—	–
Euston ..	c	77	26	0·01
Forbes ..	b	64	42	0
Gl'n Inn's	g	56	26	0
Goulburn	f	57	38	0
Grafton ..	b	67	51	0
Gulgong	c	64	50	0
Gunned'h	c	65	50	0
Hay	b	67	36	0
Hill End	b	—	—	0
Inverell ..	b	64	43	0
Kiandra	n	50	19	0
Lismore	b	65	52	0·16
Maitland	b	62	45	0
Marsdens	n	65	41	0
Menindie	b	62	46	0
Molong ..	b	64	31	0
Moree ..	b	70	49	0
Moruya ..	b	62	42	0
Moss Vale	f	48	32	0
Mt. Hope	b	46	41	0
M. Vict'ria	b	53	35	0
Mudgee ..	b	71	39	0
M'rr'm'bh	b	87	34	0
M'rr'r'ndi	c	57	46	0
Mus'br'k	b	65	35	0
Narrabri	h	63	44	0·03
Newcastle	b	65	48	0
Nowra ..	b	62	40	0
Orange ..	c	50	35	0
Picton ..	n	58	32	0
P. M'q'rie	c	65	50	0·08
P. St'ph'n	b	79	58	0
Q'nbeyan	n	51	35	0
Quirindi	c	67	52	0
Singleton	b	62	43	0
Sydney ..	c	59	47	0
Tamw'rth	–	—	—	–
Taralga ..	g	66	36	0
Taree	g	66	52	0·01
T'nt'rfield	b	58	44	0
Wagga ..	c	61	34	0
Walcha ..	f	56	40	0
Walgett ..	b	61	48	0·20
W'ntw'rth	b	65	37	0
Wilcannia	b	—	—	0
W'll'ng'ng	g	67	44	0
Young ..	g	79	36	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., **b** standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers: r, rain; s, snow; t, thunder; **u**, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. The corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River, B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast cloudy and gloomy, with light E. and S.E. winds; on south coast, calm and fine. Rainfall: Carnarvon, 0·04, sea smooth. Extremes of barometers and temperature: Geraldton, 30·32; Cossack, 29·96; Carnarvon, 76°; and Esperance Bay, 43°, and heavy dew.

South Australia.—Generally fine, with scattered clouds. On coast gloomy and threatening, with light variable winds and moderate sea. Inland, calm, fine, and cold, and in Northern Territory fine with S.E. winds. Rainfall: Adelaide, 0·06; Cape Borda, 0·10. Extremes of barometers and temperature: Alice Springs, 30·42; Port Darwin, 29·96 and 76°; and Macdonnell Bay, 47°.

Victoria.—Generally fine, with light northerly winds, fallen barometers, and moderate sea. Heavy frost, dew, and fog in early morning. Rainfall: Wilson's Promontory, 0·10. Extremes of barometers and temperature: Melbourne, 30·34; Portland, 30·25; Horsham, 55°; and Lake Entrance, 45°.

Tasmania.—Generally fine, with light variable winds and smooth sea. Rough sea off Circular Heads. Hoar frost at Southport. No rain. Extremes of barometers and temperature: Low Heads, 30·37; Circular Heads, 30·31 and 51°; Southport, 36°.

New Zealand.—Generally fine, with N.E. and S.E. winds, and risen barometers. Barometers: Russell, 30·2; and Bluff, 30·3.

New South Wales.—Generally fine and cold, with light south and west winds, almost steady barometers, and moderate sea. Light rain fallen at a few stations on north coast, and in New England districts; very heavy at Clarence, where over 2 inches fell. In northern coast disiricts the weather is still cloudy and unsettled; on mountains in south heavy fog prevails, and at Sydney mist measuring half a point fell during the night. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·40; Forbes, 30·11; Bourke, 65°; and Cooma, 30°. Extra stations: Bundarra, max. 66° min. 44° calm and cloudy; Morangarell, max. 60° min. 45° calm and fine; Warrah, max. 63° min. 50° calm and dull. For further particulars see map.

Queensland.—Generally fine, with light southerly winds, risen barometers, and smooth sea. Cape Moreton: Rough sea, and 10 points rain. Extremes of barometers and temperature: Brisbane, 30·22; Townsville, 29·87; Cooktown, 85°; and Cape Moreton, 60°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.S.W., 18, fine but cloudy, smooth sea, temperature 57°; Cape Otway, E., 8, fine but hazy, moderate sea, temperature 60°; Melbourne, S.S.W., 8, fine, temperature 57°; Cape Schanck, calm, fine but hazy, smooth sea, temperature 55°; Wilson's Promontory, N.N.E., 8, fine but cloudy, moderate sea, temperature 59°; Lakes Entrance, W., 8, fine, moderate sea, temperature 52°.

New South Wales.—Menindie, calm, fine, temperature 59°; Wentworth, S.W., 14, fine, temperature 52°; Deniliquin, S., 14, fine and clear, temperature 62°; Moruya, S., 14, fine, moderate sea, temperature 59°; Cape St. George, S., 28, cloudy, smooth sea, temperature 59°; Sydney, S., 8, fine but cloudy, smooth sea, temperature 60°; Newcastle, S.S.E., 14, fine, smooth sea, temperature 61°; Port Macquarie, S., 28, unsettled, moderate sea, temperature 67°; Clarence River, S., 14, fine, moderate sea, temperature 67°; Dubbo, calm, fine, temperature 62°; Goulburn, calm, dull, temperature 54°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 3 inches above summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, 8 inches above summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, low; at Bourke, summer level.

ASTRONOMICAL MEMORANDA FOR JUNE 3.

Sun rises at 6.59, sets at 4.57; Moon, 7.20 a.m., 5.38 p.m.; Mercury, 6.10 a.m., 4.26 p.m.; Venus, 3.29 a.m., 2.43 p.m.; Mars, 12.41 p.m., 12.11 a.m.; Jupiter, 1.7 p.m., 12.56 a.m.; Saturn, 8.56 a.m., 6.49 p.m. New Moon, 3rd; full moon, 16th.

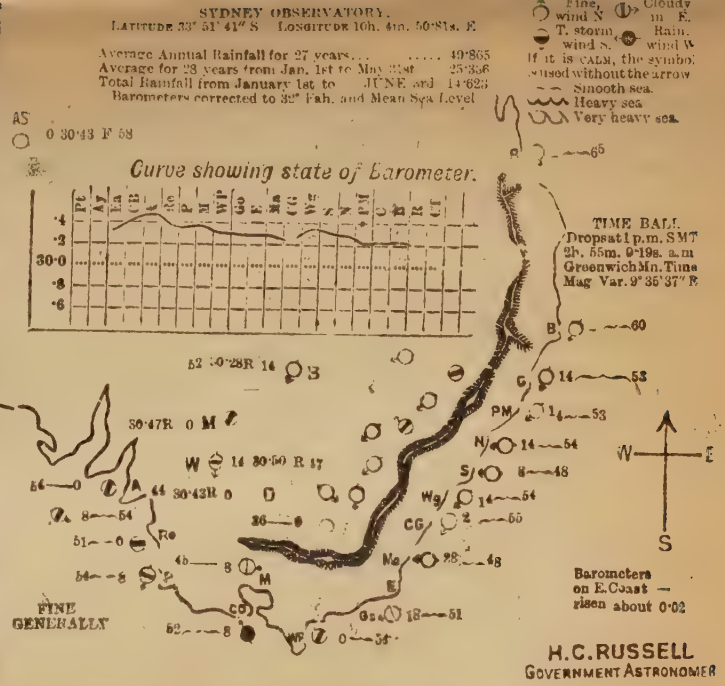
High water at Fort Denison, June 3: 8.40 a.m., 9.2 p.m.

Albury	n	60	33	0
Armidale	g	57	43	0·04
Balranald	b	82	42	0
Bathurst	h	59	29	0
Bend'm'r	n	55	35	0
Bodalla ..	b	—	32	0
Bourke ..	b	73	40	0
C'md'n H	b	66	54	0
C. St. Geo	b	63	48	0
Carcoar ..	n	52	35	0
Casino ..	b	76	48	0
Cassilis ..	b	58	41	0
Clarence	b	69	54	0
C'nd'b'lin	h	62	41	0
Cooma ..	f	59	20	0
Coonab'n	n	67	33	0
C'namble	b	—	—	0
Cowra ..	n	60	41	0
Denilig'n	c	68	31	0
Dubbo ..	b	68	37	0
Eden ..	—	—	—	—
Euston ..	c	83	37	0
Forbes ..	n	64	37	0
Gl'n Inn's	b	59	31	0
Goulburn	g	51	30	0
Grafton ..	f	76	50	0·01
Gu[illegible]ng	b	60	50	0
Gunned'h	b	60	45	0
Hay ..	g	67	36	0
Hill End	b	—	—	0
Inverell ..	b	68	38	0
Kiandra	n	44	16	0
Lismore	b	76	53	0·01
Maitland	b	62	44	0
Maredens	n	65	44	0
Menindie	g	66	47	0
Molong ..	n	69	33	0
Moree ..	b	75	54	0
Moruya ..	b	68	44	0·02
Moss Vale	b	49	35	0
Mt. Hope	n	47	42	0
M. Vict'ria	b	56	32	0
Mudgee ..	n	74	33	0
M'rr'm'bh	b	64	34	0
M'rr'ndi	b	58	39	0
Mus'lbr'k	b	77	36	0
Narrabri	b	62	33	0
Newcastle	b	66	51	0
Nowra ..	—	—	—	—
Orange ..	n	57	31	0
Picton ..	n	60	34	0
P. M'q'rie	b	66	46	0
P. St'ph'n	r	81	51	0·28
Q'beyan	n	52	33	0
Quirindi	b	71	45	0
Singleton	b	63	43	0
SYDNEY ..	b	61	47	0·02
Tam'w'rth	b	66	39	0
Taralga ..	f	61	30	0
Taree	b	70	48	0·01
Tat'rfield	—	—	—	—
Wagga ..	n	62	39	0
Walcha ..	f	57	32	0
Walgett ..	b	65	45	0
W'ntw'rth	g	70	44	0
Wilcannia	b	—	—	0
Will'm's'g	b	67	48	0
Young ..	b	78	39	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years ..... 49·865
Average for 28 years from Jan. 1st to May 31st ..... 25·336
Total Rainfall from January 1st to JUNE 3rd ..... 14·623
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W[illegible] the state of the weather at 9 a.m., b stands for blue sky; c, detached clouds; [illegible]; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; z, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; and, in the rain for the previous 24 hours. The symbols used in the map are explained in the margin. At each coast station the wind symbol is placed like a vane pointing in the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, the symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light east and south winds, and smooth sea. No rain fallen. Extremes of barometers and temperature: Perth, 30·32; Ashburton, 30·14; Carnarvon, 72°; and Esperance Bay, 45°.

South Australia.—On south coast cloudy and gloomy, with light southerly winds and moderate sea. Inland, and in Northern Territory fine with S.E. winds. Rainfall: Eucla, 0·03; Streaky Bay, 0·10; and M'Donnell Bay, 0·02. Extremes of barometers and temperature: Alice Springs, 30·43; Port Darwin, 29·95, and 76°; and Macdonnell Bay, 51°.

Victoria.—Generally gloomy, cloudy, and foggy, with risen barometers, light northerly winds, and moderate sea. Rainfall: Portland 0·08, Cape Otway 0·19, and still raining at 9 a.m. Mist, fog, and dew generally. Extremes of barometers and temperature: Horsham, 30·40 and 55°; Ballarat, 30·07; and Hamilton, 44°.

Tasmania.—Generally fine, with light variable winds, high barometers, and moderate sea. Severe frosts on east coast. Extremes of barometers and temperature: Low Heads, 30·36; Circular Heads, 30·31 and 55°; and Southport, 35°.

New Zealand.—Russell: Fine, strong N.E. wind, and barometer 29·8; Wellington, passing showers from S.W., barometer 30·0; Bluff, cloudy, with north wind, and barometer 30·2.

New South Wales.—Generally fine and frosty, with light west and S.W. winds, almost steady barometers, and smooth sea. Light rain fallen at a few stations along the coast, heaviest at Port Stephens, where over 28 points fell, and still raining at 9 a.m. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·50; Forbes, 30·12; Lismore, 57°; and Cooma, 25°. Extra stations: Gabo Island, 6 points rain; Bundarra, max. 63° min. 41° calm and cloudy; Morangarell, max. 60° min. 35° fine and frosty; Warrah, max. 67° min. 47° calm and fine; Tenterfield, max. 65° min. 36° calm and fine. For further particulars see map.

Queensland.—Generally fine, with southerly winds and moderate sea. Extremes of barometers and temperature: Rockhampton, 30·23; Townsville, 29·93; Cooktown, 84°; and Brisbane, 60°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.S.W., 13, fine but cloudy, smooth sea, temperature 55°; Cape Otway, S.W., 8, cloudy, smooth sea, temperature 56°; Melbourne, S.W., 8, cloudy and gloomy, temperature 54°; Cape Schanck, N.W., 8, misty and gloomy, smooth sea, temperature 57°; Wilson's Promontory, S.W., 8, fine but cloudy, smooth sea, temperature 55°; Lakes Entrance, W., 13, fine, moderate sea, temperature 51°.

New South Wales.—Menindie, S.W., 14, fine, temperature 59°; Wentworth, S.W., 14, fine, temperature 56°; Moruya, S., 28, fine, moderate sea, temperature 59°; Sydney, S., 12, dull and cloudy, smooth sea, temperature 58°; Newcastle, S.S.E., 14, fine, smooth sea, temperature 62°; Port Macquarie, S., 28, fine, smooth sea, temperature 67°; Clarence River, S., 14, fine, moderate sea, temperature 66°; Walgett, S.W., 14, fine, temperature 62°; Dubbo, S.W., fine, temperature 60°; Goulburn, calm, fine, temperature 55°.

STATE OF RIVERS.

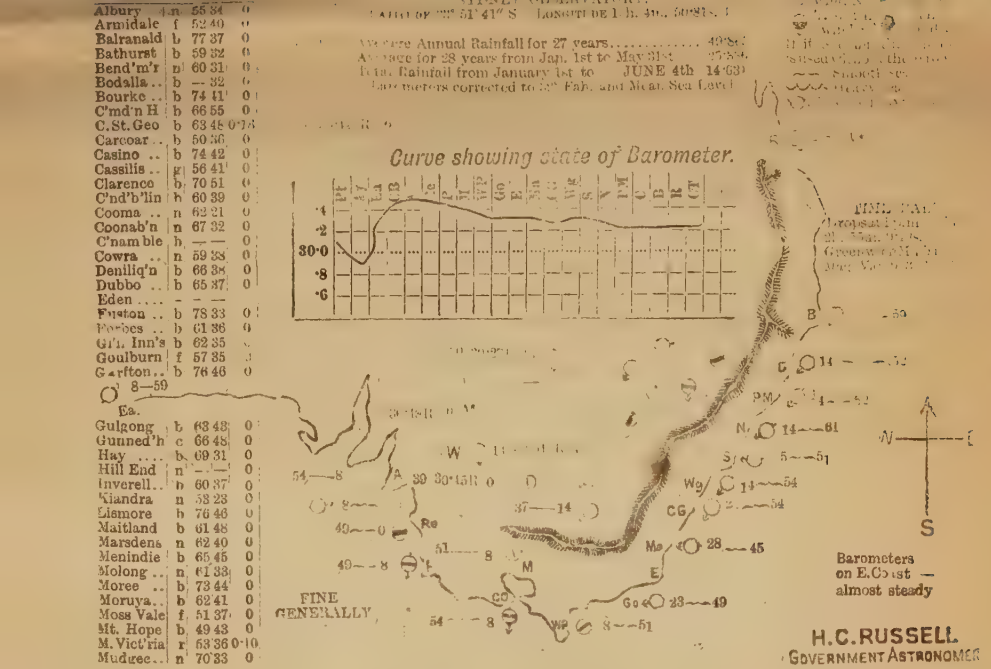
Murrumbidgee: At Wagga, 1 foot 1 inch above summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, 7 inches above summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, low; at Bourke, 10 inches above summer level, and rising.

ASTRONOMICAL MEMORANDA FOR JUNE 4.

Sun rises at 6.59, sets at 4.57; Moon, 8.20 a.m., 6.34 p.m.; Mercury, 6.17 a.m., 4.28 p.m.; Venus, 3.31 a.m., 2.43 p.m.; Mars, 12.38 p.m., 12.9 a.m.; Jupiter, 1.3 p.m., 12.52 a.m.; Saturn, 8.8 a.m., 6.46 p.m. New Moon, 3rd; full moon, 16th.

High water at Fort Denison, June 4: 9.24 a.m., 9.46 p.m.

Albury	n	55	34	0
Armidale	f	52	40	0
Balranald	b	77	37	0
Bathurst	b	59	32	0
Bend'm'r	n	60	31	0
Bodalla ..	b	—	32	0
Bourke ..	b	74	41	0
C'md'n H	b	66	55	0
C.St.Geo	b	63	48	0·18
Carcoar ..	b	50	36	0
Casino ..	b	74	42	0
Cassilis ..	g	56	41	0
Clarence	b	70	51	0
C'nd'b'lin	b	60	39	0
Cooma ..	n	62	21	0
Coonab'n	n	67	32	0
C'namble	h	—	—	0
Cowra ..	n	59	38	0
Deniliq'n	b	66	38	0
Dubbo ..	b	65	37	0
Eden	-	-	-	-
Euston ..	b	78	33	0
Forbes ..	b	61	36	0
Gr'n Inn's	b	62	35	-
Goulburn	f	57	35	-
Grafton ..	b	76	46	0
Ga.				
Gulgong ..	b	63	43	0
Gunned'h	c	66	48	0
Hay	b	69	31	0
Hill End	n	—	—	0
Inverell ..	b	60	37	0
Kiandra	n	53	23	0
Lismore	b	76	46	0
Maitland	b	61	48	0
Marsdens	n	62	40	0
Menindie	b	65	45	0
Molong ..	n	61	38	0
Moree ..	b	73	44	0
Moruya ..	b	62	41	0
Moss Vale	f	51	37	0
Mt. Hope	b	49	43	0
M. Vict'ria	r	53	36	0·10
Mudgee ..	n	70	33	0
M'rr'm'bh	b	86	34	0
M'rr'ndi	b	56	33	0
Mus'br'k	g	66	37	0
Narrabri	b	65	32	0
Newcastle	b	67	51	0·04
Nowra ..	-	—	—	-
Orange ..	g	59	31	0
Picton ..	b	62	36	0
P. M'q'rie	b	68	45	0
P. St'ph'n	r	78	55	1·93
Q'nbeyan	b	51	34	0
Quirindi	n	70	44	0
Singleton	b	61	44	0
SYDNEY ..	g	61	49	0·01
Tamw'rth	b	65	36	0
Taralga ..	b	69	42	0
Taree ..	b	69	48	0·01
Tnt'rfield	b	64	23	-
Wagga ..	n	60	27	0
Walcha ..	f	55	32	0
Walgett ..	b	63	43	0
W'ntw'rth	b	64	41	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	65	47	0
Young ..	n	61	34	0



NOTES EXPLANATORY OF MAP.

In the first station column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. R'n the corresponding minimum temperature, r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather, and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth, Ay, Albany; Ba, Bucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, becoming with Western Australia, and passing along eastwards; northerly winds preceeding them, and southerly following.

Western Australia.—In north parts fine, with light south and east winds, and moderate sea. In south gloomy and threatening, with light westerly winds. No rain fallen. Extremes of barometers and temperature: Geraldton, 30·16 and 75°; Albany, 29·82 and Esperance Bay, 54°.

South Australia.—Generally fine, with light E. and S.E. winds, high and steady barometers, and smooth sea. M'Donnell Bay, 15 points rain. Extremes of barometers and temperature: Robe, 30·45 and 49°; Port Darwin, 29·92 and 78°.

Victoria.—Generally fine, but cloudy, with light south and west winds, risen barometers and smooth sea. Foggy and misty generally. Rainfall: Portland, 0·01; Cape Schanck, 0·28. Extremes of barometers and temperature: Cape Otway, 30·43 and 54°; Wilson's Promontory, 30·31; and Omeo, 39°.

Tasmania.—Generally fine, but cloudy, with light variable winds, fallen barometers, and smooth sea. Dense fog on north coast. Extremes of barometers and temperature: Low Heads, 30·34 and 43°; Southport, 30·29 and 51°.

New Zealand.—Russell: Fine, with strong squally N.W. wind, barometer 29·6; Wellington, passing showers from S.E., barometer 29·6; Bluff, cloudy, with east wind, barometer 29·9. On west coast S.E. wind.

New South Wales.—Generally fine and cold, with light south to west winds, high and steady barometers, and smooth sea. Very light rain fallen at a few stations on the coast, but heavy at Port Stephens, where nearly 2 inches fell, and still raining at 9 a.m.; also showery at Mount Victoria. Extremes of barometers and temperature at 9 a.m.; Wentworth, 30·51; Forbes, 30·11; Newcastle, 61.; and Cooma, 25°. Extra stations: Eden, max. 58° min. 54° fine and smooth sea; Bundarra, max. 66° min. 40° calm and fine; Morangarell, max. 62° min. 33° calm and fine; Warrah, max. 66° min. 39° calm and fine. For further particulars see map.

Queensland.—Generally fine, with southerly winds and moderate sea. Extremes of barometers and temperature: Cape Moreton, 30·22 and 57; Townsville, 29·86; and Cooktown, 84°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, calm, cloudy, smooth sea, temperature 55°; Cape Otway, N.W., 8, foggy and misty, rain, smooth sea, temperature 57°; Melbourne, S.W., 8, fine but cloudy, temperature 56°; Cape Schanck, S., 8, fine, smooth sea, temperature 57°; Wilson's Promontory, S.W., 18, fine but cloudy, smooth sea, temperature 54°; Lakes Entrance, W., 13, fine but cloudy, smooth sea, temperature 52°.

New South Wales.—Menindie, S., 14, fine, temperature 60°; Wentworth, S.S.E., 14, fine, temperature 56°; Deniliquin, calm, fine, temperature 63°; Moruya, S., 28, fine, moderate sea, temperature 58°; Cape St. George, S., 12, cloudy, smooth sea, temperature 57°; Sydney, S., 14, overcast and gloomy, smooth sea, temperature 58°; Newcastle, S.W., cloudy, smooth sea, temperature 59°; Port Macquarie, S., 28, fine, smooth sea, temperature 66°; Clarence River, S., 14, fine, smooth sea, temperature 66°; Dubbo, calm, fine, temperature 57°; Goulburn, calm, dull, temperature 57°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, below summer level, rising slowly; at Balranald, below summer level. Murray: At Albury, 6 inches above summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, low; at Bourke, 10 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JUNE 5.

Sun rises at 7, sets at 4.56; Moon, 9.18 a.m., 7.36 p.m.; Mercury, 6.24 a.m., 4.31 p.m.; Venus, 3.32 a.m., 2. p.m.; Mars, 12.35 p.m., 12.7 a.m.; Jupiter, 12.59 p.m., 1. a.m. Saturn, 8.49 a.m., 6.43 p.m. New Moon, 3rd; full moon, 16th.

High water at Fort Denison, June 5: 10.9 a.m., 10.31 p.m.

METEOROLOGICAL ABSTRACT, MAY, 1886,

with results for the same month during the preceding 27 ye

— .	Barometer at 32° Fah. and mn. sea lev'l.	Temperature in Shade.			Rainfall	
		Mean Max.	Mean Min.	Mean.	Amount N. Inches.	d
1886:						
May	30·123	66·0	51·2	58·6	2·641	1
Average for 28 years ...	30·080	65·2	51·9	58·5	4·973	1
Monthly Extremes:						
Highest ...	30·357	67·7	56·1	61·0	13·166	2
Year ...	1868	1885	1867	1867	1876	1
Lowest ...	29·875	62·2	49·0	56·4	0·214	
Year ...	1882	1879	1865	1861	1885	1

Wind.—Prevailing direction, W.; average prevailing direction for 28 years, W.; May, 1886, mean miles per hour, 8·7.

Temperature.—Highest shade temperature, 75·3, on the 18th highest shade temperature in any May since 1859, 83·5, on th 1st. 1859; lowest shade temperature, 44·1, on the 31st.; lowest shade temperature in any May since 1859, 40·2, on the 22nd 1859.

Rainfall.—Greatest fall in one day, 1·718, on the 29th; greater fall in one day in any May since 1859, 4·370, on the 8th, 1869.

H. C. RUSSELL, Government Astronomer.

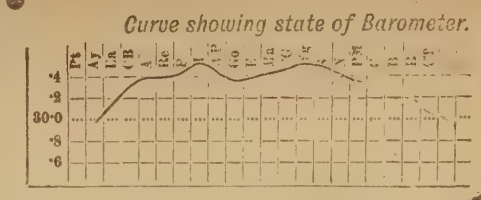
Sydney Observatory, June 4, 1886.

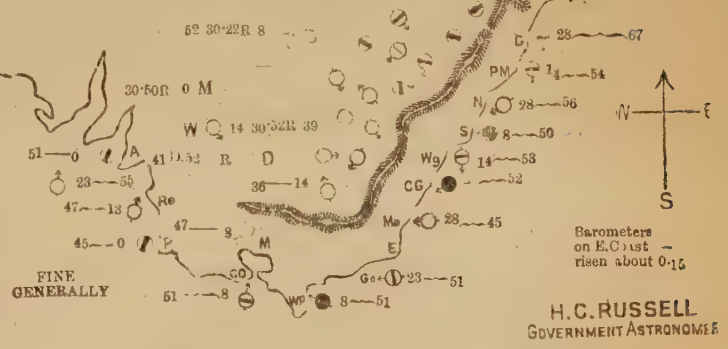
Albury	b	60 32	0	
Armidale	g	53 42	0	
Balranald	n	73 33	0	
Bathurst	b	60 36	0	
Bend'm'r	n	58 34	0	
Bodalla ..	b	— 31	0	
Bourke ..	c	71 45	0	
C'md'n H	g	65 56	0	
C. St. Geo	r	62 54	0·35	
Carcoar ..	b	52 39	0	
Casino ..	o	74 47	0	
Cassilis ..	g	55 45	0	
Clarence	c	68 51	1·09	
C'nd'b'lin	h	58 36	0	
Cooma ..	h	56 17	0	
Coonab'n	h	65 34	0	
C'nemble	b	— —	0	
Cowra ..	b	60 38	0	
Deniliq'n	b	66 34	0	
Dubbo ..	b	62 33	0	
Eden	—	— —	—	
Euston ..	b	69 34	0	
Forbes ..	b	63 37	0	
Gl'n Inn's	o	55 38	0	
Goulburn	g	56 38	0	
Grafton ..	g	78 49	0	
Gulgong ..	b	63 44	0	
Gunned'h	b	59 47	0	
Hay	b	65 32	0	
Hill End	g	— —	0	
Inverell ..	o	60 42	0	
Kiandra	n	39 24	0	
Lismore	—	— —	—	
Maitland	r	61 50	0·10	
Marsdens	n	61 40	0	
Menindie	b	60 42	0	
Molong ..	n	65 33	0	
Moree ..	g	74 50	0	
Moruya ..	b	62 39	0	
Moss Vale	r	50 39	0·02	
Mt. Hope	b	47 42	0	
M. Vict'ria	r	49 35	0·03	
Mudgee ..	b	68 38	0	
M'rr'mb'dgee	c	68 36	0	
M'rr'ndi	c	55 39	0	
Mus'br'k	b	63 42	0	
Narrabri	g	66 36	0	
Newcastle	b	67 52	0·66	
Nowra ..	—	— —	—	
Orange ..	b	50 35	0	
Picton ..	o	59 38	0	
P. M'q'rie	c	65 49	0	
P. St'ph'n	r	78 55	1·05	
Q'nbeyan	b	53 34	0	
Quirindi	n	63 46	0	
Sing'eton	r	54 43	0	
Sydney ..	r	58 49	0·49	
Tamw'rth	b	63 36	0	
Tarcutta	c	61 35	0	
Taree	g	64 51	0·03	
T'nt'rfield	g	63 44	0	
Wagga ..	n	59 27	0	
Walcha	b	55 31	0	
Walgett ..	g	62 46	0	
W'atw'rth	b	63 35	0	
Wilcannia	c	— —	0	
W'll'ng'ng	c	62 51	0·37	
Young ..	h	67 45	0	

LATITUDE 33° 51′ 41″ S LONGITUDE 151h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to May 31st 25·356
Total Rainfall from January 1st to JUNE 5th 15·42
Barometers corrected to 32° Fah. and Mean Sea Level

T. storm — Rain
wind S. — wind W
If it is CALM, the symbol is used without the arrow.
— — Smooth sea.
Heavy sea
Very heavy sea.





H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.I. gives the state of the weather at 9 a.m., b standing for blue sky, c, detached clouds; d, drizzling rain, f, fog, g, gloomy, h, hazy; m, misty, n, frosty; o, overcast; p, passing showers; r, rain, s, snow; t, thunder, u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. Min the corresponding minimum temperature, r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney, N. Newcastle, P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometers is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Albany: Showery, with fresh west wind. Rainfall, 0·20. Barometer, 29·84. Perth: Showery, with N.W. wind. Rainfall, 1·32. Temperature, 58°. Barometer, 29·97.

South Australia.—Generally fine and cold, frosty in places, with light N.E. to S.E. winds, fallen barometers, and smoth sea. No rain fallen. Extremes of barometers and temperature: M'Donnell Bay, 30·47 and 44°; Port Darwin, 29·94 and 75°.

Victoria.—Generally fine, with light north and N.E. winds, risen barometers, and smooth sea. Rainfall: Portland, 0·01; Cape Otway, 0·09 and foggy; Cape Schanck, 00·8 and foggy; Ballarat, 0·03 and foggy; Wilson's Promontory, 0·19 and showery. Extremes of barometers and temperature: Omeo, 30·54 and 30°; Horsham, 30·42 and 56°.

Tasmania.—Generally fine, with light south and east winds, fallen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: Low Heads, 30·47 and 44°; Circular Head, 30·42 and 50°.

New Zealand.—Russell: Passing showers from west, with strong wind, barometer 29·5; Wellington, showery, with strong S.W. wind, barometer 29·7; Bluff, fine, with S.W. wind, barometer 30·0.

New South Wales.—Generally unsettled weather, with light S. to S.E. winds, very high barometers, and smooth sea. Light rain has fallen along the coast, heaviest Clarence and Port Stephens, at each of which places over an inch fell. At 9 a.m. this morning it was raining on the coast between Cape St. George and Port Stephens, and to Mount Victoria in west. Extremes of barometers and temperature at 9 a.m.: Wentworth, and and Deniliquin, 30·52; Forbes and Wagga, 32·23; Clarence, 67°; and Cooma, 21°. Extra stations: Eden, max. 58° min. 44° and fine; Bundarra, max. 66° min. 44°, cloudy; Morangarell, max. 60° min. 36° and fine. For further particulars see map.

Queensland.—Generally cloudy and showery, with S. and S.E. winds and moderate sea. Showery at Cape Moreton, and light rain at Cooktown. Extremes of barometers and temperature: Brisbane, 30.30 and 61°; Townsville, 29·86; and Cooktown, 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E., 18, fine, smooth sea, temperature 57°; Cape Otway, E., 6, fine, smooth sea, temperature 56°; Melbourne, no telegrams; Wilson's Promontory, calm, fine, moderate sea, temperature 54°.

New South Wales.—Menindie, calm, fine, temperature 58°; Wentworth, N.E., 10, fine, clear, temperature 55°; Deniliquin, calm, fine, clear, temperature 62°; Moruya, S.S.E., 28, fine, but storm to eastward, sea rough, temperature 63°; Cape St. George, S.W., 23, showery, smooth sea, temperature 56°; Sydney, S.E., 10, cloudy, smooth sea, temperature 60°; Newcastle, S.E., 14, fine, cloudy, smooth sea, temperature 62°; Port Macquarie, S., 28, unsettled, moderate sea, temperature 66°; Clarence River, S.W., 14, showery, moderate sea: Walgett, E.S.E., 8, cloudy, cold temperature 60; Goulburn, calm, cloudy, temperature 56°.

STATE OF RIVERS.

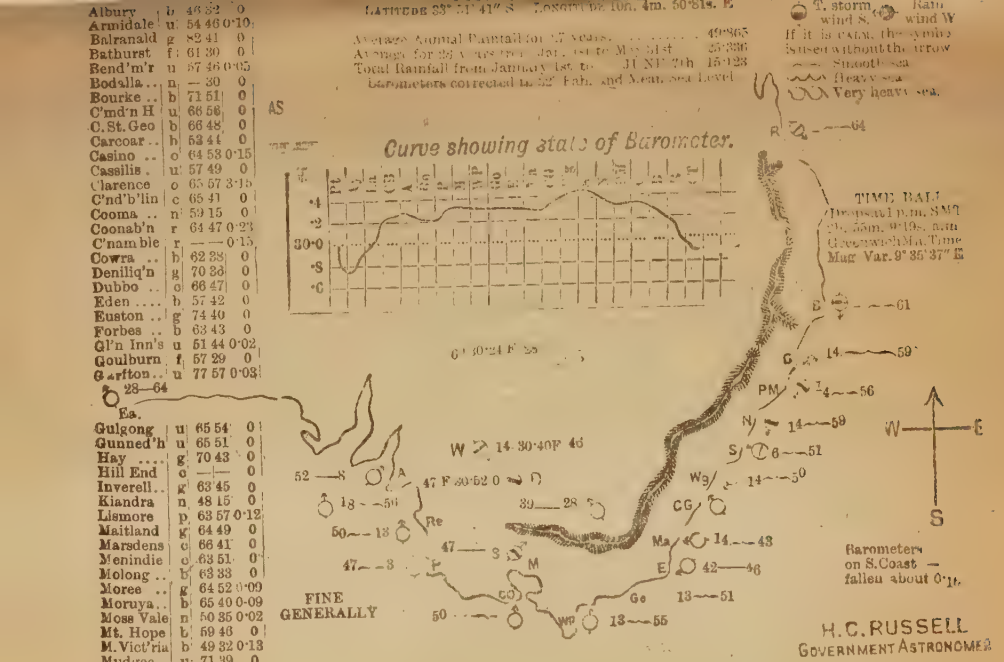
Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, 6 inches above summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, low; at Bourke, below summer level, and stationary.

ASTRONOMICAL MEMORANDA FOR JUNE 7.

Sun; rises at 7.1, sets at 4.56; Moon, 11.0 a.m., 9.44 p.m. Mercury, 6.38 a.m., 4.36 p.m.; Venus, 3.35 a.m., 2.41 p.m.; Mars, 12.30 p.m., 12.4 a.m.; Jupiter, 12.52 p.m., 12.42 a.m.; Saturn, 8.42 a.m., 6.36 p.m. New Moon, 3rd; full moon, 16th.

High water at Fort Denison, June 7: 11.38 a.m.

Albury	b	46 52	0
Armidale	u	54 46	0·10
Balranald	g	82 41	0
Bathurst	f	61 30	0
Bend'm'r	u	57 46	0·05
Bodalla	n	— 30	0
Bourke	b	71 51	0
C'md'n H	u	66 56	0
C. St. Geo	b	66 48	0
Carcoar	b	53 44	0
Casino	o	64 53	0·15
Cassilis	u	57 49	0
Clarence	o	65 57	3·15
C'nd'b'lin	c	65 41	0
Cooma	n	59 15	0
Coonab'n	r	64 47	0·23
C'namble	r	— —	0·15
Cowra	b	62 38	0
Deniliq'n	g	70 36	0
Dubbo	o	66 47	0
Eden	b	57 42	0
Euston	g	74 40	0
Forbes	b	63 43	0
Gl'n Inn's	u	51 44	0·02
Goulburn	f	57 29	0
Grafton	u	77 57	0·03
Gulgong	u	65 54	0
Gunned'h	u	65 51	0
Hay	g	70 43	0
Hill End	c	— —	0
Inverell	g	63 45	0
Kiandra	n	48 15	0
Lismore	p	63 57	0·12
Maitland	g	64 49	0
Marsdens	o	66 41	0
Menindie	o	63 51	0
Molong	b	63 33	0
Moree	g	64 52	0·09
Moruya	b	65 40	0·09
Moss Vale	n	50 35	0·02
Mt. Hope	b	59 46	0
M. Vict'ria	b	49 32	0·13
Mudgee	u	71 39	0
Murr'm'bh	b	67 35	0
Murr'rndi	g	60 43	0
Mus'br'k	g	70 38	0
Narrabri	u	65 38	0·01
Newcastle	g	64 57	0
Nowra	b	— —	0
Orange	n	51 33	0
Picton	f	58 38	0
P. M'q'rie	g	62 53	1·54
P. St'ph'n	c	77 56	0
Q'nbeyan	b	64 34	0
Quirindi	p	70 46	0·13
Singleton	g	63 46	0·10
SYDNEY	c	58 50	0·06
Tam'w'rth	p	63 49	0·09
Taralga	b	61 30	0
Taree	g	64 54	0·01
Tnt'rfield	u	54 46	0·04
Wagga	c	63 37	0
Walcha	r	52 33	0·02
Walgett	p	63 53	0·21
W'ntw'rth	c	79 42	0
Wilcannia	c	— —	0
W'll'ng'ng	b	63 46	0
Young	b	77 36	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature, P'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather, a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla, CB, Cape Borda; A, Adelaide, Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo, E, Eden, Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney, N, Newcastle, P M, Port Macquarie; C, Clarence River; B, Brisbane, R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

New South Wales.—Cloudy generally, with light breeze between S.E. and S.W.; raining this morning at Coonabarabran, Coonamble, Walcha, Walgett, and Warrah; showery at Lismore, Quirindi, and Tamworth; heavy frost at Cooma and Kiandra; throughout the colony the barometer has fallen since 9 a.m. yesterday; smooth and moderate sea on coast. Additional Stations:—Bundarra, max. 63, min. 51, wind W., cloudy; Bateman's Bay, not in; Gulgong, max. 65, min. 54, W., like rain; Mount Hope, max. 58, min. 45, calm, fine and clear; Morangarell, max. 63, min. 40, calm and dull; Warrah, max. 71, min. 38, calm, raining slightly.

Queensland.—Showery at Brisbane and Rockhampton, and fine at Townsville and Cooktown; 0·34 of rain fell at Brisbane and 0·18 at Cape Morton; sea slight at Townsville.

Western Australia.—Heavy showers at Perth, and fine at Albany, while at Esperance Bay the weather is threatening; wind generally from N.W., and very smooth sea at Albany. Rainfall: 0·10 at Esperance Bay and Albany.

South Australia.—Weather generally fine, cold, and frosty in places, with light wind between N.N.W. and N.E., and moderate sea at Cape Borda and Robe.

Victoria.—Generally fine throughout, with light N.E. to N.W. winds, and slight sea on coast at Cape Schanck, Wilson's Promontory, and Lake Entrance; frost at Omeo, Lake Entrance, and Ballarat. Rainfall: At Echuca, 0·06. The barometer has fallen along S. coast.

Tasmania.—Foggy at Low Head, with light S.E. breeze, and 0·05 of rain; Hobart, overcast, with light N.NW. wind; Falmouth, fine, with light W. wind, and the sea dead calm.

New Zealand.—The barometers are generally about 30·8, with S. wind and fine.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.W., 8, fine, smooth sea, temperature 60°; Cape Otway, N.W., 8, fine, misty, moderate sea, temperature 63°; Melbourne, N., light, fine, temperature 63°; Cape Schanck, N., 8, smoke haze, smooth sea, temperature 57°; Wilson's Promontory, N.W., 13, fine, slight sea, temperature 60°; Lakes Entrance, W., fine, slight sea, temperature 58°.

New South Wales.—Menindie, E.S.E., overcast, dull, temperature 26°; Wentworth, N.W., 14, cloudy, dull, temperature 57°; Deniliquin, calm, fine, temperature 64°; Moruya, calm, fine, smooth sea, temperature 61°; Cape St. George, N.W., 14, fine, smooth sea, temperature 65°; Sydney, W., 14, overcast, dull, smooth sea, temperature 60°; Newcastle, S., light, no sea, temperature 63°; Port Macquarie, S., 28, unsettled, moderate sea, temperature 65°; Clarence River, S., light, dull, moderate sea, temperature 67°; Walgett, S.E., cloudy, temperature 61°; Dubbo, calm, fine, temperature 64°; Goulburn, calm, fine, temperature 57°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot above summer level; at Balranald, below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, low; at Bourke, 6 feet 6 inches above summer level, rising fast.

ASTRONOMICAL MEMORANDA FOR JUNE 8.

Sun; rises at 7.1, sets at 4.56; Moon, 11.42 a.m., 10.50 p.m. Mercury, 6.43 a.m., 4.39 p.m.; Venus, 3.36 a.m., 2.46 p.m.; Mars, 12.27 p.m., 12.2 a.m.; Jupiter, 12.48 p.m., 12.38 a.m.; Saturn, 8.39 a.m., 6.33 p.m. New Moon, 3rd; full moon, 16th.

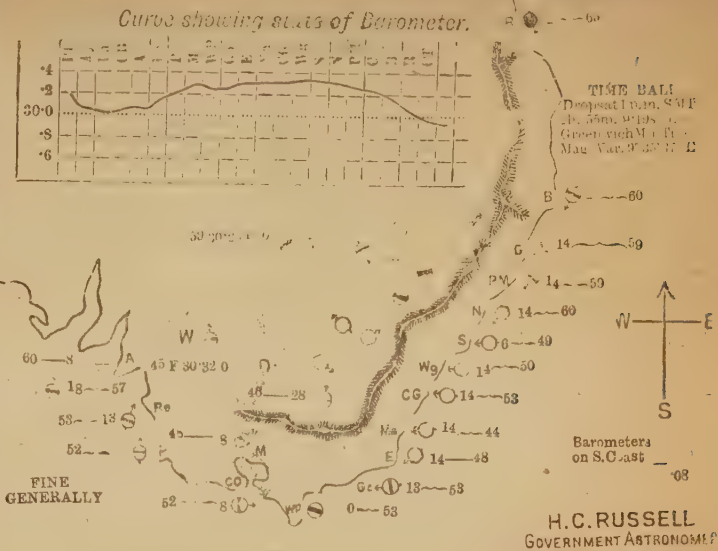
High water at Fort Denison, June 8: 12.1 a.m., 12.25 p.m.

Albury	c	59	39	0·01
Armidale	u	59	46	0·11
Balranald	b	78	43	0·29
Bathurst	f	60	32	0
Bend'm'r	b	58	45	0·03
Bodalla	n	—	28	0
Bourke	o	73	54	0
C'md'n H	g	64	57	0
C.St.Geo	b	66	42	0
Carcoar	b	62	38	0
Casino	b	68	53	0·05
Cassilis	c	57	49	0
Clarence	c	68	58	0·53
C'nd'b'lin	b	66	41	0
Cooma	n	64	22	0
Coonab'n	c	58	48	0·11
C'namble	b	—	—	0
Cowra	n	64	34	0
Deniliq'n	b	72	40	0
Dubbo	b	65	49	0
Eden	b	58	44	0
Euston	g	74	43	0·04
Forbes	b	63	42	0
Gl'n Inn's	g	50	46	0·01
Goulburn	n	60	24	0
Grafton	b	73	51	0
Gulgong	u	64	47	0
Gunned'h	b	64	53	0·02
Hay	b	72	43	0
Hill End	b	—	—	0
Inverell	b	61	48	0
Kiandra	n	52	21	0
Lismore	g	65	59	0·04
Maitland	b	61	54	0
Marsdens	n	68	42	0
Menindie	g	65	53	0
Molong	b	67	37	0
Moree	b	63	52	0·16
Moruya	b	66	39	0
Moss Vale	f	53	32	0
Mt. Hope	g	55	51	0
M.Vict'ria	b	56	37	0
Mudgee	g	67	43	0
M'rr'm'bh	b	69	33	0
M'rr'r'ndi	f	56	45	0
Mus'lbr'k	b	69	41	0
Narrabri	g	65	46	0·05
Newcastle	b	67	57	0
Nowra	-	—	—	-
Orange	b	52	33	0
Picton	b	61	32	0
P. M'q'rie	b	66	52	0
P. St'ph'n	b	79	55	0·10
Q'nbeyan	b	53	35	0
Quirindi	b	70	45	0·08
Singleton	b	58	43	0
Sydney	b	62	48	0
Tamw'rth	b	64	49	0·02
Taralga	b	66	29	0
Taree	b	65	56	0
T'nt'rfield	b	54	48	0
Wagga	b	63	30	0·05
Walcha	b	65	42	0
Walgett	c	62	53	0·02
W'ntw'rth	c	70	45	0
Wilcannia	g	—	—	0
W'll'ng'ng	g	69	46	0
Young	b	82	34	0

LATITUDE 33° 51' 41" S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years .... 49·865
Average for 28 years from Jan. 1st to Mar. 31st 336
Total Rainfall from January 1st to ... 31 ... 15·229
Barometers corrected to ... and Mean Sea Level

T. storm, Rain
wind S. wind W
If it is CALM, the symbol is used without the arrow
Smooth sea.
Heavy sea.
Very heavy sea.



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the **weather at 9 a.m., b** standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty, o, overcast; p, passing showers; r, rain, s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth, Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On South coast heavy showers at Albany and Esperance Bay, with fresh, squally, westerly winds, and rough sea; cloudy at Perth, with W. wind and smooth sea. Rainfall: Perth, 0·59; Albany, 0·46; and Esperance Bay, 0·49. Extremes of barometers and temperature: Perth, 30·20 and 59·; Esperance Bay, 30·0 and 49·

South Australia.—Generally fine and cold, with scattered clouds, light northerly winds, fallen barometers, and moderate sea; no rain fallen. Extremes of barometers and temperature: Robe, 30·12; Streaky Bay, 29·97; Adelaide, 60·: and M'Donnell Bay, 47·.

Victoria.—Generally cloudy, with light north to east winds, fallen barometers, and smooth sea; heavy dew, mist, and haze along coast; at Omeo foggy; no rain fallen. Extremes of barometers and temperature; Omeo, 30·37 and 42·; Portland, 30·19; and Horsham, 55·.

Tasmania:—Generally fine, with light variable winds, and smooth sea. Foggy at Low Heads and Hobart; frosty at Southport; dead calm sea off Falmouth; and 15 points rain at Circular Head. Extremes of barometers and temperature: Hobart, 30.33 and 41·; Circular Head, 30·27 and 49·.

New Zealand:—Generally fine, with light N.W. winds, and barometers, 30·2 at Bluff and Wellington; and S.E. wind, barometer 30·3, at Russell.

New South Wales.—Generally fine, with light south to west winds, falling barometers, and smooth sea; light rain has fallen in northern part of the colony, on both sides of the range, and at a few stations on the Murray, near Euston; the heaviest fall took place at Clarence, when half-an-inch fell; at 9 a.m. this morning it was cloudy and threatening in the districts where rain had fallen. The floodwater caused by the late heavy rains in the Darling watershed has now reached Bourke, where it runs 8 feet 4 inches above summer level, and is still rising. Extra Stations:—Bundarra, max. 63, min. 50, rainfall 0·11, and cloudy; Morangarell, max. 65, min. 36, fine and clear; Warrah, max. 60, min. 44, fine. (For further particulars see map.)

Queensland.—In southern parts generally cloudy and showery, with rough sea. In North, fine, with moderate sea. Winds light south-east and east. Rainfall:—Rockhampton, 1·67; Brisbane, 0·26; Cape Moreton, 0·13. Extremes of barometers and temperature:—Brisbane, 30·19 and 60·; Townsville, 29·85; and Cooktown, 75·.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.E., 18, cloudy smooth sea, temperature 58·; Cape Otway, N.E., 8, gloomy and misty, smooth sea, temperature 58·; Melbourne, E., 8, cloudy and gloomy, temperature 60.; Cape Schanck, E., 8, cloudy and misty, smooth sea, temperature 56·; Wilson's Promontory, N.E., 13, cloudy and threatening, smooth sea, temperature 56·; Lakes Entrance, S.W., 13, fine, but cloudy, smooth sea, temperature 57·.

New South Wales.—Menindie, calm, dull, temperature 64·; Wentworth, N., 14, showery and dull, temperature 57·; Deniliquin, calm, fine, temperature 66·; Eden, S., 14, fine, smooth, temperature 58·; Moruya, N.E., 14, fine, smooth sea, temperature 50·; Cape St. George, N.W., 14, fine, smooth sea, temperature 66·; Sydney, S.E., 6, fine, smooth sea, temperature 51·; Newcastle, S.E, 14, cloudy, smooth sea, temperature 63·; Port Macquarie, S., 28, fine, smooth sea, temperature 70·; Clarence River, S., 14, fine, smooth sea, temperature 67·; Dubbo, calm, fine, temperature 64·; Goulburn, calm, fine, temperature 57·.

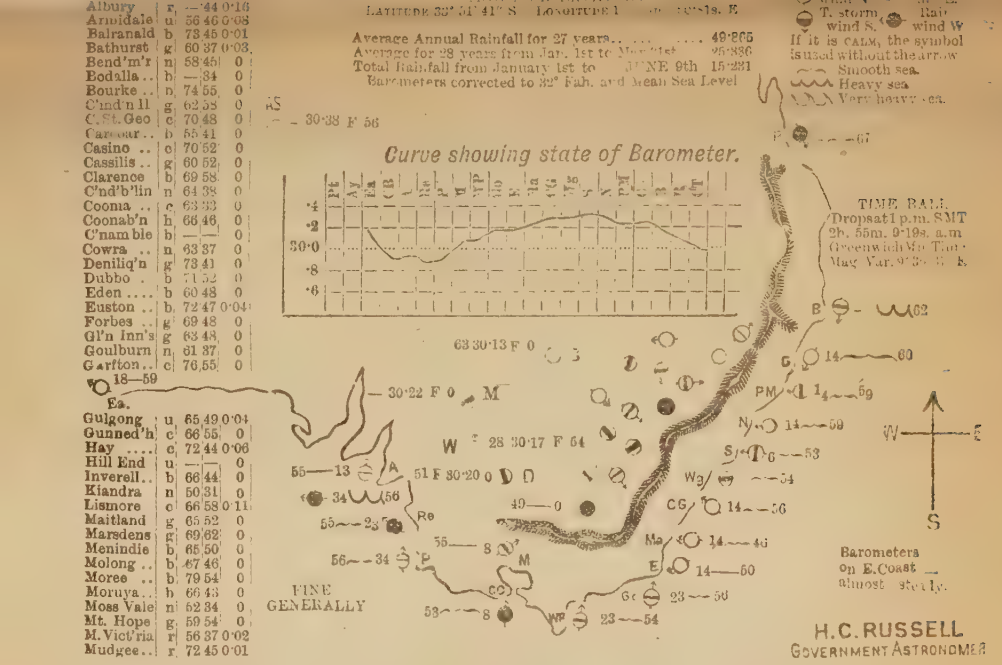
STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, summer level; at Balranald, below summer level. Murray: At Albury, below summer level; at Euston, low. Darling: At Wentworth, below summer level; at Pooncarie, below summer level; at Wilcannia, low; at Bourke, 8 feet 4 inches above summer level, and rising.

ASTRONOMICAL MEMORANDA FOR JUNE 9.

Sun; rises at 7.2, sets at 4.56; Moon, 12.23 p.m., 11.55 p.m. Mercury, 6.48 a.m., 4.42 p.m.; Venus, 3.38 a.m., 2.40 p.m.; Mars, 12.24 p.m., 12.0 a.m.; Jupiter, 12.44 p.m., 12.34 a.m.; Saturn, 8.35 a.m., 6.29 p.m. New Moon, 3rd; full moon, 16th. High water at Fort Denison, June 9: 12.49 a.m., 1.18 p.m.

Albury	r	—	44	0·16
Armidale	u	56	46	0·08
Balranald	b	73	45	0·01
Bathurst	g	60	37	0·03
Bend'm'r	n	58	45	0
Bodalla ..	b	—	34	0
Bourke ..	b	74	55	0
C'ndo'n 11	g	62	58	0
C.St. Geo	c	70	48	0
Carcoar ..	b	55	41	0
Casino ..	c	70	52	0
Cassilis ..	g	60	52	0
Clarence	b	69	58	0
C'nd'b'lin	n	64	38	0
Cooma ..	c	63	33	0
Coonab'n	h	66	46	0
C'nam ble	b	—	—	0
Cowra ..	n	63	37	0
Deniliq'n	g	73	41	0
Dubbo ..	b	71	52	0
Eden	b	60	48	0
Euston ..	b	72	47	0·04
Forbes ..	g	69	48	0
Gl'n Inn's	g	63	48	0
Goulburn	n	61	37	0
Grafton ..	c	76	55	0
Gulgong	u	65	49	0·04
Gunned'h	c	66	55	0
Hay	c	72	44	0·06
Hill End	u	—	—	0
Inverell ..	b	66	44	0
Kiandra	n	50	31	0
Lismore	c	66	58	0·11
Maitland	g	65	52	0
Marsdens	g	69	62	0
Menindie	b	65	50	0
Molong ..	b	67	46	0
Moree ..	b	79	54	0
Moruya ..	b	66	43	0
Moss Vale	n	62	34	0
Mt. Hope	g	59	54	0
M. Vict'ria	r	56	37	0·02
Mudgee ..	r	72	45	0·01
M'rr'm'bh	c	72	36	0·02
M'rr'r'ndi	b	57	47	0
Mus'lbr'k	b	70	48	0
Narrabri	g	65	43	0
Newcastle	b	69	55	0
Nowra ..	–	—	—	–
Orange ..	g	54	38	0
Picton ..	u	62	39	0
P. M'q'rie	c	68	52	0·06
P. St'ph'n	b	79	57	0
Q'nbeyan	c	55	36	0
Quirindi	o	69	52	0
Singleton	c	55	51	0·02
SYDNEY ..	h	62	50	0
Tamw'rth	c	66	49	0
Taralga ..	g	71	36	0
Taree	g	67	55	0·03
T'nt'rfield	u	59	50	0
Wagga ..	c	66	40	0·10
Walcha ..	g	56	42	0
Walgett ..	g	67	56	0
W'ntw'rth	b	67	50	0·01
Wilcannia	c	—	—	0
W'll'ng'ng	g	69	50	0
Young ..	c	78	44	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, showery, fresh west wind, and moderate sea; barometer 30·22, and temperature 55°, and rainfall 0·34.

South Australia.—Inland, fine and calm, with scattered clouds. On and near coast gloomy and threatening, with north and west winds and moderate sea. Cape Borda reports passing showers, strong, squally west wind, and rough sea. Rainfall along the coast, from 0·30 at Warracoote, to 0·10 at Port Lincoln. Extremes of barometers and temperature: Alice Springs, 30·38; M'Donnell Bay, 29·82 and 53°; and Daly Waters, 69°.

Victoria.—Generally cloudy and gloomy, with fresh northerly winds, fallen barometers, and moderate sea; light rain on S.W. coast. Rainfall: Hamilton, 0·09; Ballarat, 0·01; and Portland, 0·09. Extremes of barometers and temperature; Omeo, 30·19 and 45°; Hamilton, 29·90; and Horsham, 58°.

Tasmania.—Generally cloudy, with fresh easterly winds; rough sea off Circular Head, moderate on east coast. Foggy at Hobart. Rainfall at Circular Heads, 0·05. Extremes of barometers and temperature: Hobart, 30·23 and 42°; and Circular Head, 30·08 and 54°.

New Zealand.—Russell, calm and fine; barometer, 30·1. Wellington, showery, from S.W.; barometer, 29·8. Bluff, fine, with S.W. wind; barometer, 30°.

Queensland.—Showery, with rough sea in south parts, and fine with moderate sea in north. Winds light from E. and S.E. Rainfall: Cape Moreton, 0·21; Rockhampton, 0·15; and Brisbane, 0·05. Extremes of barometers and temperature: Brisbane, 30·13 and 62°; Townsville, 29·84; and Cooktown, 94°.

New South Wales.—On the coast fine, with light westerly winds, steady barometers, and smooth sea. Inland generally cloudy and threatening rain, with fallen barometers, and light variable winds. Very light rain has fallen along the courses of the Murrumbidgee and Murray Rivers, at a few stations on the range west, and on the coast north of Sydney. The heaviest fall, 16 points, occurred at Albury, where it was still raining at 9 a.m. Mount Victoria and Mudgee report showery weather at 9 a.m. At Bourke the river runs 11 feet above summer level, and is rising fast. Extremes of barometers and temperature at 9 a.m.: Wollongong, 30·30; Wagga, 29·99; Bourke, 63°; Kiandra, 38°. Extra Stations:—Bundarra, max. 72°, min. 45°, cloudy and cool; Morangarell, max. 65°, min. 45°, rainfall 0·03, and dull; Warrah, max. 65°, min. 45°, calm, fine and clear. (For further particulars see map.)

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 28, passing showers, smooth sea, temperature 58°; Cape Otway, N., 8, showery and misty, smooth sea, temperature 56°; Melbourne, N.N.E., 18, cloudy, temperature 60°; Cape Schanck, N., 13, passing showers, smooth sea, temperature 57°; Wilson's Promontory, N.N.E., 23, gloomy and threatening, moderate sea, temperature 55°; Lakes Entrance, N.E., 8, cloudy and threatening, smooth sea, temperature 55°.

New South Wales.—Menindie, N.W., 14, fine and clear, temperature 67°; Wentworth, N.W., 14, fine and clear, temperature 61°; Deniliquin, calm, fine, temperature 68°; Eden, N.E., 14, fine, smooth sea, temperature 62°; Moruya, N.N.E., 28, fine, smooth sea, temperature 64°; Cape St. George, N.N.W., 14, cloudy, smooth sea, temperature 63°; Sydney, calm, fine but cloudy, smooth sea, temperature 61°; Newcastle, S.E, 14, fine, smooth sea, temperature 65°; Port Macquarie, S.E., 14, fine, smooth sea, temperature 75°; Clarence River, S., 14, fine, smooth sea, temperature 69°; Dubbo, N.E., fine, temperature 65°; Goulburn, calm, dull, temperature 57°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 1 inch above summer level; at Hay, below summer level; at Balranald, below summer level Murray: At Albury, below summer level; at Euston, below summer level. Darling: At Wentworth, below summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, low; at Bourke, 11 feet above summer level, and rising fast.

ASTRONOMICAL MEMORANDA FOR JUNE 10.

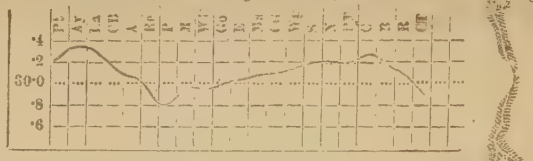
Sun rises at 7.2, sets at 4.56; Moon, 1.3 p.m.; Mercury, 6.53 a.m., 4.45 p.m.; Venus, 3.39 a.m., 2.39 p.m.; Mars, 12.21 p.m., 11.58 a.m.; Jupiter, 12.40 p.m., 12.30 a.m.; Saturn, 8.32 a.m., 6.26 p.m. New Moon, 3rd; full moon, 16th.

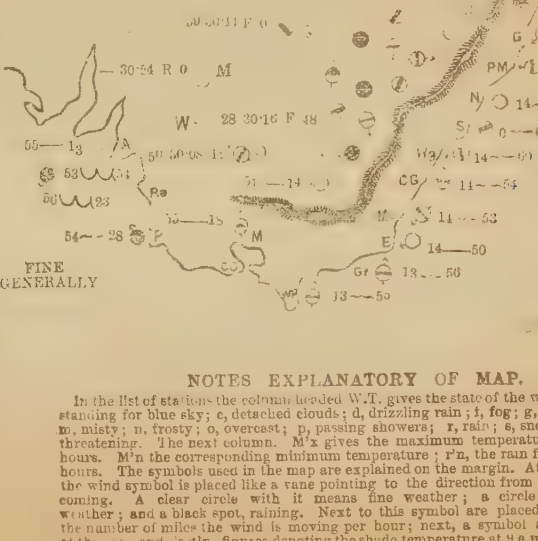
High water at Fort Denison, June 10: 1.45 a.m., 2.20 p.m.

Albury ..	u	64	44	0·00
Armidale	b	59	46	0
Balranald	g	81	38	0
Bathurst	b	60	44	0
Bend'n'r	n	60	48	0
Bodalla ..	g	—	39	0·01
Bourke ..	g	71	56	0·03
C'md'n H	c	64	53	0
C.St. Geo	c	65	50	0
Carcoar ..	r	56	48	0·05
Casino ..	c	75	54	0
Cassilis ..	g	61	51	0
Clarence	n	75	58	0
C'nd'o'lin	g	66	41	0·30
Cooma ..	r	59	38	0·09
Coonab'n	r	72	47	0·09
C'nam ble	r	—	—	0·15
Cowra ..	r	65	51	0·41
Deniliq'n	b	70	38	0·14
Dubbo ..	r	69	49	0·06
Eden	g	62	48	0·06
Euston ..	b	75	38	0·01
Forbes ..	c	69	46	0·36
Gl'n Inn's	f	66	47	0
Goulburn	g	60	40	0·32
Gariton ..	n	75	54	0
Es.				
Gulgong	u	66	52	0
Gunned'h	c	64	54	0
Hay	b	72	43	0·02
Hill End	u	—	—	0
Inverell ..	b	66	47	0
Kiandra	c	46	37	0·61
Lismore	r	60	66	0·02
Maitland	g	66	58	0
Marsdens	c	70	55	0·12
Menindie	b	71	50	0
Molong ..	r	62	45	0·03
Moree ..	g	80	55	0
Moruya ..	g	62	45	0
Mose Vale	n	54	46	0·01
Mt. Hope	b	57	50	0
M.Victr'ia	b	53	37	0
Mudgee ..	g	68	15	0·02
M'rr'm'bid	c	70	47	0·33
M'rr'r'ndi	g	60	45	0
Mus'br'k	n	71	47	0
Narrabri	g	70	46	0
Newcastle	n	64	56	0
Nowra ..	–	—	—	–
Orange ..	r	55	44	0·05
Picton ..	c	61	43	0
P. M'q'rie	u	69	50	0
P. St'ph'n	c	79	56	0
Q'nbeyan	r	54	42	0·23
Quirindi	b	73	53	0
Singleton	b	58	54	0
SYDNEY ..	c	62	55	0
Tam'w'rth	g	66	49	0
Taralga ..	r	62	41	0·25
Taree	g	72	52	0
T'nt'rfield	c	65	48	0
Wagga ..	g	60	45	0·20
Walcha ..	b	60	45	0
Walgett ..	r	70	58	0·10
W'nt'w'rth	b	72	44	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	67	54	0
Young ..	g	76	52	0·20

Latitude 33° 51′ 42″ S Longitude 151° 13′ 40″ E

Average Annual Rainfall for 27 years..... 40·805
Average for 28 years from Jan. 1st to May 31st 24·336
Total Rainfall from January 1st to JUNE 10th 15·238
Barometers corrected to 32° Fah. and Mean Sea Level





NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; z, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown. Perth, Ay, Albany, Ea, Eucla, CE, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River. B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with risen barometers and smooth sea; winds on south coast westerly, and on west coast easterly. At Esperance Bay, 0·04 of rain. Extremes of barometers and temperature: Esperance Bay, 30·33 and 52°; Cossack, 30·09; and Carnarvon, 72°.

South Australia.—On south coast cloudy, gloomy and raining, with fresh westerly winds and rough sea. Rainfall: M'Donnell Bay, 0·80; Robe, 0·24; Cape Borda, 0·18; Adelaide and Port Lincoln, each 0·06. Extremes of barometers and temperature: Alice Springs, 30·45; Robe, 29·89; Cape Borda, 54°; and Port Darwin, 75°.

Tasmania.—Generally cloudy and gloomy, with fallen barometers and rough sea. Winds on north coast easterly, and east coast calm. Foggy at Hobart; heavy dew at Southport; and 59 points rain at Falmouth. Extremes of barometers and temperature: Hobart, 29·95 and 45°; Circular Head, 29·92 and 55°.

Victoria.—Generally cloudy, with light northerly winds, fallen barometers, and moderate sea; raining at Wallsend, Hamilton, and Portland. Rainfall: Ranging from 5 points at Melbourne to 36 points at Omeo. Extremes of barometers and temperature: Lake Entrance, 30·16; Portland, 29·78; Horsham, 56°; and Ballarat, 47°.

New Zealand.—Generally showery and squally, with hail, south-west winds, and risen barometers. Barometers: Russell, 30·1; Wellington, 30·2; Bluff, 30·5.

Queensland.—In south cloudy, in north fine. Winds, S.E. to E. and sea moderate. Rainfall: Rockhampton, 0·27; Brisbane, 0·13; Cape Moreton, 0·25; at the last-mentioned place it was still raining at 9 a.m. Extremes of barometers and temperature: Brisbane, 30·18 and 64°; Townsville, 29·84; and Cooktown, 98°.

New South Wales.—Generally cloudy and threatening rain, except in western parts, where it is fine, with light variable winds, fallen barometers, and smooth sea. Light rain has fallen at 30 stations, scattered along the western slope of the range, principally about Orange and Forbes, but heaviest at Kiandra and Albury; also at a few stations on the Namoi and Castlereagh rivers: and at 9 a.m. this morning it was still raining more or less heavily at 12 stations, scattered over the same districts, &c., beyond the range, from Walgett in north to Cooma in south. At Bourke the Darling has now reached 13 feet above summer level, and is still rising. Coonamble reports every appearance of a heavy downpour, and Dubbo showers, with thunder. Extra Stations: Temora, 13 points of rain, weather dull and cloudy; Bundarra, max. 72°, min. 47°, calm and cloudy; Morangarell, max. 67°, min. 51°, rainfall 0·22, and threatening; Warrah, max. 70°, min 45°, calm and fine (For further particulars see map.)

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 18, showery, smooth sea, temperature 54°; Cape Otway, N., 8, fine but misty, smooth sea, temperature 56°; Melbourne, N., 13, cloudy and gloomy, temperature 57°; Cape Schanck, N., 23, passing showers, smooth sea, temperature 57°; Wilson's Promontory, calm, fine but cloudy, moderate sea, temperature 61°; Lakes Entrance, N.E., 8, passing showers, smooth sea, temperature 59°.

New South Wales.—Menindie, S.W., 28, fine, temperature 62°; Wentworth, W., 28, fine, temperature 58°; Deniliquin, calm, fine, temperature 67°; Eden, N.E., 14, like rain, smooth sea, temperature 63°; Moruya, W.N.W., 14, gloomy, smooth sea, temperature 58°; Cape St. George, S.W., 14, showery, smooth sea, temperature 62°; Sydney, W., 16, raining steadily, smooth sea, temperature 58°; Newcastle, N.W., 14, fine, smooth sea, temperature 67°; Port Macquarie, N.N.E., 28, dull, smooth sea, temperature 70°; Dubbo, N.W., 14, showery, temperature 64°; Goulburn, calm, showery, temperature 58°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 3 inches above summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, below summer level; at Euston, below summer level. Darling: At Wentworth, below summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, low; at Bourke, 13 feet above summer level, and rising.

ASTRONOMICAL MEMORANDA FOR JUNE 11.

Sun rises at 7.3, sets at 4.56; Moon, 1.40 p.m. 12.57 a.m.; Mercury, 6.58 a.m., 4.47 p.m.; Venus, 3.41 a.m., 2.39 p.m.; Mars, 12.18 p.m., 11.56 a.m.; Jupiter, 12.36 p.m., 12.26 a.m.; Saturn, 8.28 a.m., 6.22 p.m. New Moon, 3rd; full moon, 16th.

High water at Fort Denison, June 11: 2.54 a.m., 3.31 p.m.

Albury	r	59	50	0·22
Armidale	b	59	47	1·16
Balranald	g	70	42	0·03
Bathurst	b	54	36	0·40
Bend'm'r	r	60	44	0·35
Bodalla ..	g	—	31	0
Bourke ..	b	77	41	0
C'md'n H	g	70	56	0
C. St. Geo	b	63	53	0
Carcoar ..	g	55	50	0·00
Casino ..	r	74	57	0·75
Cassilis ..	b	63	45	0·73
Clarence	o	74	58	0·84
C'nd'b'lin	c	71	46	0
Cooma ..	n	64	31	0·03
Coonab'n	b	63	41	0·43
C'nam ble	b	—	—	0
Cowra ..	g	65	43	0·28
Deniliq'n	g	65	49	0·04
Dubbo ..	b	66	37	0·20
Eden	b	65	46	0·01
Euston ..	g	67	43	0·04
Forbes ..	c	63	46	0·04
Gl'n Inn's	b	58	46	1·30
Goulburn	g	53	37	0·36
Grafton ..	g	74	58	1·40
Gu[illegible]gong	b	64	50	0·91
Gunned'h	b	68	55	0·61
Hay	g	65	45	0·03
Hill End	b	—	—	0·34
Inverell ..	f	66	35	1·05
Kiandra	r	51	34	0·33
Lismore	g	72	61	0·49
Maitland	b	67	55	0·67
Marsdens	n	68	47	0
Menindie	g	66	51	0
Molong ..	b	62	36	0·59
Moree ..	b	62	54	0·82
Moruya ..	b	66	41	0·04
Moss Vale	b	57	42	0·19
Mt. Hope	g	52	48	0
M. Vict'ria	b	56	36	0·29
Mudgee ..	b	57	37	0·04
M'rr'm'bh	g	65	46	0·12
M'rr'n'di	b	63	50	0·60
Mus'br'k	b	74	48	0·51
Narrabri	g	63	46	0·24
Newcastle	b	71	55	0·78
Nowra ..	–	—	—	–
Orange ..	b	54	36	0·94
Picton ..	b	61	36	0
P. M'q'rie	u	69	53	0·55
P. St'ph'n	b	80	57	0
Q'nbeyan	c	56	42	0·28
Quirindi	f	68	55	0·47
Singleton	b	58	53	0·60
Sydney ..	h	64	49	0·35
Tamw'rth	g	65	50	0·45
Taralga ..	g	72	39	0·18
Taree	b	72	54	0·18
T'nt'rfield	b	63	50	1·18
Wagga ..	b	61	44	0·03
Walcha ..	g	59	41	0·43
Walgett ..	b	68	48	0·65
W'ntw'rth	c	65	36	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	63	52	0
Young ..	g	69	44	0·05

Average Annual Rainfall for 27 years ..... 19·35
Average for 28 years from Jan. 1st to May 31st ..... 25·36
Total Rainfall from January 1st to JUNE 11th 15·78
Barometers corrected to 32° Fah. and Mean Sea Level

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; r, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea, and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light east winds on west coast, and west winds on south coast; sea smooth, and no rain fallen. Extremes of barometers and temperature: Esperance Bay, 30·41 and 48°; Carnarvon, 30·19 and 76°.

South Australia.—Generally cloudy, with S.W. and W. winds on coast. Light rain has fallen inland to Beltana; heaviest at Crafers and Lobethal, 62 and 40 points respectively; showery at Wallaroo, Cape Borda, and M'Donnell Bay. Barometers have risen generally, and the sea moderated. Extremes of barometers and temperature on coast: Eucla, 30·43; M'Donnell Bay, 30·16 and 53°; and Adelaide, 55°.

Victoria.—Generally cloudy and gloomy, with light south and west winds, risen barometers, and moderate sea. Passing showers at Adelaide, Portland, and Ballarat. Rainfall generally, from 0·05 at Echuca to 0·56 at Ballarat. Extremes of barometers and temperature: Ballarat, 30·13 and 48°; Wilson's Promontory, 29·97; and Horsham, 57°.

Tasmania.—Generally cloudy, with light variable winds and calms; risen barometer and moderate sea. Foggy at Low Heads and 11 points of rain, 6 points at Hobart and heavy dew at Southport. Extremes of barometer and temperature: Circular Heads, 30·02 and 49·0; Southport, 29·98 and 45·0.

New Zealand.—Generally showery and squally, with hail and variable winds. Southerly winds on North Island; on East Coast, rough sea. Barometers: Russell, 30·3; Wellington, 30·2; and Bluff, 30·3.

New South Wales.—Generally fine and mild. On coast, light westerly winds, fallen barometers, and smooth sea. Inland, variable winds and risen barometers. Light rain has fallen in that par of the colony situated to east of a line joining Walgett in north to Wagga in south, and along the courses of the Murray and Murrumbidgee rivers. The heaviest fall took place in the extreme north around Inverell and Grafton, and in the central districts about Mudgee. A dozen stations in those localities report little more or less than an inch, while Lawrence, in the Clarence district, had an inch and half of rain during the night. At 9 a.m. this morning it was still raining at the following places:—Casino, Bendermeer, Albury, and Kiandra. At the last place half an inch snow fell. Extra Stations: Camden, 20 points rain, fine, clear, and warm weather; Bundarra, max. 61°, min. 51°; rainfall, 1·01; Morangarell, max. 68°, min. 48°, cloudy; Warrah, max. 65°, min. 38°, rainfall 0·61, calm and clear. (For further particulars see map.)

Queensland.—In south showery and cloudy, with southerly winds and rough sea. In north fine and warm, with S.E. winds. Rainfall: Cape Moreton, 2·16; Brisbane, 1·59; Rockhampton, 0·02, and foggy. Extremes of barometers and temperature: Rockhampton, 30·08; Townsville, 29·80; Cooktown, 100°, and Brisbane, 62°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.S.W., 18, passing showers, smooth sea, temperature 54°; Cape Otway, S.W., 13, fine but misty, moderate sea, temperature 55°; Melbourne, S.W., 13, cloudy and gloomy, temperature 55°; Wilson's Promontory, W.S.W., 23, fine and squally, moderate sea, temperature 54°; Lakes Entrance, W., 18, cloudy, smooth sea, temperature 56°.

New South Wales.—Menindie, S.W., 14, dull, temperature 61°; Wentworth, S.W., 28, cloudy and threatening, temperature 57°; Deniliquin, N.W., fine, temperature 66°; Eden, W. 14, fine, smooth sea, temperature 60°; Moruya, E.N.E., 14, fine, smooth sea, temperature 62°; Cape St. George, W.S.W., 28, fine and clear, smooth sea, temperature 61°; Sydney, W.S.W., 16, fine and clear, smooth sea, temperature 61.; Newcastle, S.W., 14, fine, smooth sea, temperature 65°; Port Macquarie, S.E., 14, fine, smooth sea, temperature 71°; Walgett, S.S.W., 14, fine and clear, temperature 60°; Dubbo, S.W., 14, fine, temperature 60°; Goulburn, calm, dull, temperature 57°.

STATE OF RIVERS.

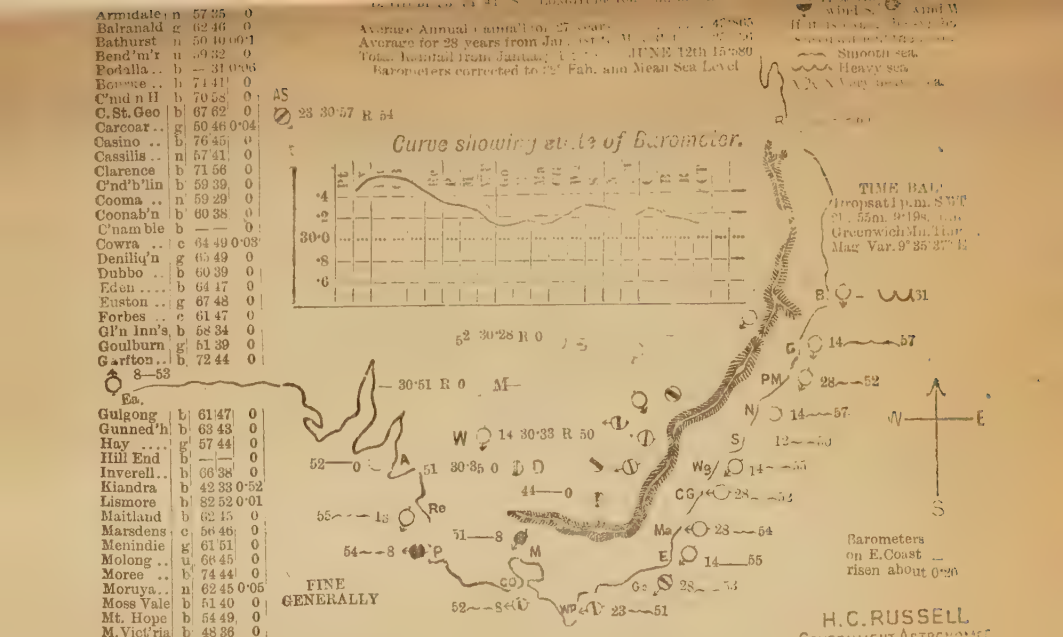
Murrumbidgee: At Wagga, 1 foot 3 inches above summer level; at Hay, summer level; at Balranald, 1 foot above summer level, and rising. Murray: At Albury, below summer level; at Euston, 1 foot 3 inches above summer level. Darling: At Wentworth, summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, low; at Bourke, 14 feet 6 inches above summer level, and rising.

ASTRONOMICAL MEMORANDA FOR JUNE 12.

Sun rises at 7.3, sets at 4.56; Moon, 2.18 p.m., 2.0 a.m.; Mercury, 7.3 a.m., 4.50 p.m.; Venus, 3.42 a.m., 2.38 p.m.; Mars, 12.15 p.m., 11.54 a.m.; Jupiter, 12.32 p.m., 12.22 a.m.; Saturn, 8.25 a.m., 6.19 p.m. New Moon, 3rd; full moon, 16th.

High water at Fort Denison, June 12: 4.8 a.m., 4.45 p.m.

Armidale	n	57	35	0
Balranald	g	62	46	0
Bathurst	n	50	10	0·01
Bend'm'r	u	..	9	32	0
Podalla ..	b	—	31	0·06
Bowrie ..	b	71	41	0
C'mdn H	b	70	58	0
C. St. Geo	b	67	62	0
Carcoar ..	g	60	46	0·04
Casino ..	b	76	45	0
Cassilis ..	n	57	41	0
Clarence	b	71	56	0
C'nd'b'lin	b	59	39	0
Cooma ..	n	59	29	0
Coonab'n	b	60	38	0
C'nam ble	b	—	—	0
Cowra ..	c	64	49	0·03
Deniliq'n	g	65	49	0
Dubbo ..	b	60	39	0
Eden	b	64	47	0
Euston ..	g	67	48	0
Forbes ..	c	61	47	0
Gl'n Inn's	b	68	34	0
Goulburn	g	61	39	0
Gr'fton ..	b	72	44	0
Gulgong	b	61	47	0
Gunned'h	b	63	43	0
Hay	g	57	44	0
Hill End	b	—	—	0
Inverell ..	b	66	38	0
Kiandra	b	42	33	0·52
Lismore	b	82	52	0·01
Maitland	b	62	45	0
Marsdens	c	56	46	0
Menindie	g	61	51	0
Molong ..	u	66	45	0
Moree ..	b	74	44	0
Moruya ..	n	62	45	0·05
Moss Vale	b	51	40	0
Mt. Hope	b	54	49	0
M. Vict'ria	b	48	36	0
Mudgee ..	b	62	33	0
M'rr'm'bh	c	56	46	0
M'rr'ndi	b	58	40	0
Mus'br'k	b	67	35	0
Narra'bri	b	65	35	0
Newcastle	b	67	46	0
Nowra ..		—	—	–
Orange ..	g	48	40	0
Picton ..	b	60	37	0
P. M'q'rie	b	70	43	0
P. St'ph'n	h	78	54	0
Q'nbeyan	f	55	39	0
Quirindi	b	62	45	0
Singleton	b	52	46	0
SYDNEY ..	b	62	49	0
Tamw'rth	f	64	34	0
Taralga ..	b	65	35	0
Taree	b	71	46	0
T'nt'rfield	b	63	34	0
Wagga ..	c	56	44	0·02
Walcha ..	b	57	39	0
Walgett ..	b	60	44	0
W'ntw'rth	b	61	49	0
Wilcannia	g	—	—	0
Wil'ng'ng	b	60	51	0
Young ..	g	68	46	0·02



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b signifying fine bluesky, c, detached clouds; d, drizzling rain, f, fog g, gloomy, h, hazy; m, misty, n, frosty; o, overcast; p, passing showers; r, rain, s, snow; t, thunder; u, unsettled. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth, Ay, Albany; Ea, Eucla, CB, Cape Borda; A, Adelaide; Pe, Robe; P, Portland; M, Melbourne, WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle, P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Esperance Bay: Fine weather, light northerly wind, and smooth sea. Barometer, 30·47, and temperature 44°. On the border of South Australia light rain has fallen, measuring at Eucla 16 points.

South Australia.—Generally fine in Northern Territory, with fresh S.E. winds, and high barometers inland. On coast cloudy, gloomy, and cold to Quorn, with westerly winds and moderate sea. Rainfall: Cape Willoughby, 0·20; Adelaide, 0·11; Port Lincoln, 0.05; Robe, 0.03; Streaky Bay, 0.02; M'Donnell Bay, 0·07. At the last place it was still raining at 9 a.m. Extremes of barometers and temperature on coast: Eucla, 30·54; Robe, 30·38 and 55°; Adelaide, 52°. In Northern Territory: Alice Springs, 30·57; Port Darwin, 30·0 and 73°; and Daly Waters, 66°.

Victoria.—Generally cloudy and gloomy, with rain in places fresh westerly winds, and moderate sea. Passing showers at Melbourne and Portland. Rainfall: Portland, 0·21; Cape Otway, 0·09; Wilson's Promontory, 0·14; Melbourne, 0·09; Lakes Entrance, 0·01; Hamilton, 0·09; Cape Schanck, 0·10. Extremes of barometers and temperature: Horsham, 30·37; Wilson's Promontory, 30·17; Hamilton, 49°; and Horsham, 58°.

Tasmania.—Generally fine, but cloudy, with light south and west winds, and moderate sea. Passing showers at Southport, foggy at Hobart. One point of rain, Circular Heads; and 25 at Southport. Extremes of barometers and temperature: Low Heads, 30·16 and 45°; Hobart, 30·11; and Falmouth, 49°.

New Zealand.—Generally fine, with east winds, and barometers at 30·2. At Gisborne the wind is S.W. and the sea rough.

New South Wales.—Generally fine, with light south and S.W. winds, risen barometers, and smooth to moderate sea. Light rain has fallen in south-eastern parts, as far inland as Wagga and Albury, and in those districts it was cloudy and threatening rain at 9 a.m. The heaviest fall occurred at Kiandra, where half-an-inch fell. Extremes of barometers and temperature at 8 a.m.: Menindie, 30·51; Moruya, 30·10; Newcastle and Port Macquarie, 57°; and Cooma, 34°.

Extra Stations: Bundarra, maximum 68°, minimum 30°, fine and calm; Morangarell, maximum 58°, minimum 47°, cloudy; Warrah, maximum 70°, minimum 40°, calm, fine, and clear. At Bourke the Darling has reached 16 feet above summer level, and is still rising. For further particulars see map.

Queensland.—Generally fine, with light southerly winds and moderate sea. Rough sea at Cape Moreton; and strong S.E. wind in squalls at Cooktown. Extremes of barometers and temperature: Rockhampton, 30·20 and 60°; Townsville, 29·89; and Cooktown, 75°.

STATE OF RIVERS.

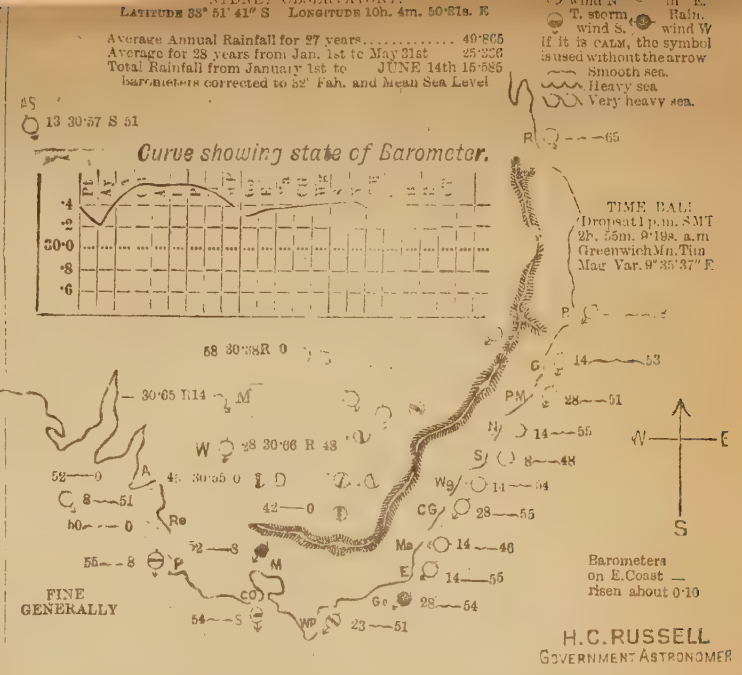
Murrumbidgee: At Wagga, 9 inches above summer level; at Hay, below summer level; at Balranald, 1 foot above summer level. Murray: At Albury, below summer level; at Euston, 1 foot 6 inches above summer level. Darling: At Wentworth, summer level; at Pooncarie, below summer level; at Wilcannia, low; at Bourke, 16 feet above summer level, and rising.

ASTRONOMICAL MEMORANDA FOR JUNE 14.

Sun rises at 7.4, sets at 4.56; Moon, 3.40 p.m., 4.2 a.m.; Mercury, 7.13 a.m., 4.55 p.m.; Venus, 3.45 a.m., 2.37 p.m.; Mars, 12.9 p.m., 11.51 p.m.; Jupiter, 12.25 p.m., 12.15 a.m.; Saturn, 8.18 a.m., 6.12 p.m. New Moon, 3rd; full moon, 16th.

High water at Fort Denison, June 14: 6.23 a.m., 6.48 p.m.

Armidale	n	57	35	0
Balranald	b	62	37	0
Bathurst	n	60	29	0
Bend'm'r	n	61	28	0
Bodalla ..	n	—	40	0
Bourke ..	b	79	47	0
C'md'n H	b	70	48	0
C. St. Geo	b	63	—	0
Carcoar ..	b	52	37	0
Casino ..	b	72	41	0
Cassilis ..	n	51	36	0
Clarence	b	68	50	0
C'nd'b'lin	g	61	41	0
Cooma ..	n	63	27	0
Coonab'n	b	62	28	0
C'namble	b	—	—	0
Cowra ..	u	60	38	0
Denilig'n	g	66	42	0
Dubbo ..	b	62	30	0
Eden	b	61	51	0
Euston ..	b	64	41	0
Forbes ..	b	65	38	0
Gl'n Inn's	n	63	34	0
Goulburn	f	56	33	0
Grafton ..	f	75	44	0
Gulgong	b	64	32	0
Gunned'h	b	60	43	0
Hay	b	63	40	0
Hill End	c	—	—	0
Inverell ..	b	59	37	0
Kiandra	n	51	18	0
Lismore	b	73	48	0
Maitland	b	62	40	0
Marsdens	f	64	41	0
Menindie	b	61	48	0
Molong ..	n	64	33	0
Moree ..	b	74	41	0
Moruya ..	b	65	41	0
Moss Vale	n	51	36	0
Mt. Hope	b	48	41	0
M. Vict'ria	b	51	33	0
Mudgee ..	n	76	28	0
M'rr'm'bh	b	58	36	0
M'rr'r'ndi	n	58	36	0
Mus'b'rk	f	64	31	0
Narrabri	h	65	38	0
Newcastle	h	67	48	0·02
Nowra ..	–	—	—	–
Orange ..	b	56	32	0
Picton ..	n	62	32	0
P. M'q'rie	b	66	44	0
P. St'ph'n	b	77	55	0·48
Q'nbeyan	f	50	34	0
Quirindi	b	64	43	0
Singleton	b	49	43	0
SYDNEY ..	b	61	50	0
Tamw'rth	f	62	33	0
Taralga ..	n	61	32	0
Taree	n	66	47	0
Tut'rfield	b	64	34	0
Wagga ..	n	61	31	0
Walcha ..	f	54	30	0
Walgett ..	b	61	42	0
W'ntw'rth	b	62	42	0
Wilcannia	b	—	—	0
W'll'mg'ng	b	66	46	0
Young ..	b	75	34	0



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W. T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain, t, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x. T., gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature, Rain the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather, a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay, Wg. Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; Ct, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In south parts fine, with easterly winds and calm, fallen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: Esperance Bay, 30·34 and 40°; Albany, 30·18; and Perth, 46°.

South Australia.—Generally fine and cold, with light south and S.E. winds, very high barometers, and smooth sea. Rainfall: M'Donnell Bay, 0·02; Cape Borda, 0·04; Adelaide, 0·01; and Port Lincoln, 0·02. Extremes of barometers and temperature: On coast—Adelaide, 30·63; Eucla, 30·47 and 55°; and Robe, 50°. In Northern Territory—Daly Waters, 30·17 and 65°; Port Darwin, 29·92 and 77°.

Victoria.—Generally cloudy and gloomy, with light rain on S.E. coast, light S. and S.W. winds and moderate sea. Rainfall: Generally along the coast from 1 to 15 points. Extremes of barometers and temperature: Horsham, 30·59 and 56°; Wilson's Promontory, 30·41; and Ballarat, 48°.

Tasmania.—Generally fine, with southerly winds on north, and westerly on S.E. coast; dead calm sea off Falmouth; heavy dew at Southport, and 1 point rain at Circular Heads. Extremes of barometers and temperature: Falmouth, 30·48 and 47°; Hobart, 30·43 and 42°.

New Zealand.—Generally fine, with light westerly winds on North Island, and N.E. wind at Bluff; passing showers on west coast. Barometers: Russell, 30·2; Wellington, 29·7; and Bluff, 29·5.

New South Wales.—Generally fine and cold, with light S. and westerly winds, very high barometers (especially in western parts), and smooth sea. Heavy frost along the entire range, and much fog in southern parts, beyond the range. Light rain fallen at and near mouth of Hunter River, and at Gabo Island. At the last-mentioned place it was still raining at 9 a.m., with strong S.W. wind and moderate sea. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·66; Port Macquarie, 30·29; Bourke, 58°; and Armidale, 33°.

Extra Stations: Bundarra, maximum 68°, minimum 37°, calm and **fine**; Morangarell, maximum 60°, minimum 38°, S.W., **fine** and **clear**; Warrah, maximum 63°, minimum 39°, S., fine and clear. **(For further particulars see map.)**

Queensland.—In southern parts generally fine, with winds from S.E. and S.W., and moderate sea. At Cooktown light rain, with strong S.E. winds and rough sea. Extremes of barometers and temperature: Brisbane, 30·29 and 58°; Townsville, 29·86; and Cooktown, 75°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S., 18, cloudy, smooth sea, temperature 56°; Cape Otway, S., 8, cloudy, foggy, moderate sea, temperature 55°; Melbourne, S.S.E., 13, fine, temperature 56°; Cape Schanck, S., 13, misty, smooth sea, temperature 57°; Wilson's Promontory, W.S.W., 18, fine but cloudy, moderate sea, temperature 55°; Lakes Entrance, W.S.W., 23, fine but cloudy, moderate sea, temperature 57°.

New South Wales.—Menindie, W., 28, fine but cloudy, temperature 61°; Wentworth, S.E., 14, fine, temperature 57°; Deniliquin, calm, cloudy, temperature 64°; Eden, S.W., 14, like rain, smooth sea, temperature 60°; Moruya, S., 28, gloomy, smooth sea, temperature 56°; Cape St. George, S., 42, cloudy and threatening, smooth sea, temperature 60°; Sydney, W., 16, fine, smooth sea, temperature 59°; Newcastle, S.W., 14, fine, smooth sea, temperature 63°; Port Macquarie, S.W., 28, fine, smooth sea, temperature 67°; Clarence River, S., 14, fine, smooth sea, temperature 60°; Dubbo, calm, fine, temperature 58°; Goulburn, calm, fine, temperature 55°.

STATE OF RIVERS.

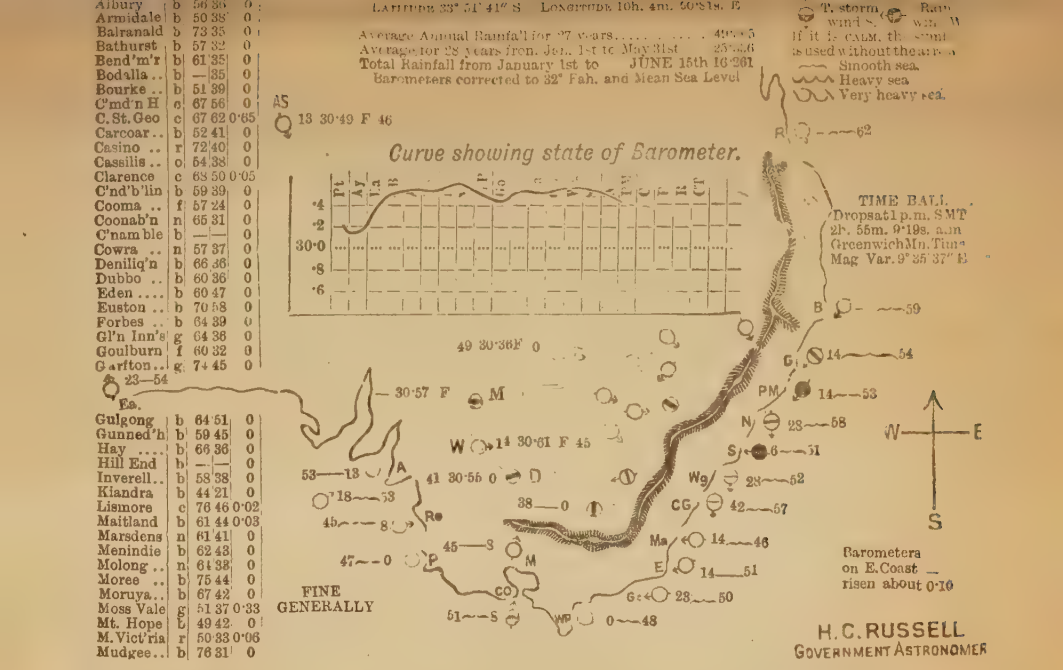
Murrumbidgee: At Wagga, 9 inches above summer level; at Hay, below summer level; at Balranald, 11 inches above summer level. Murray: At Albury, 1 foot above summer level; at Euston, 1 foot 8 inches above summer level. Darling: At Wentworth, 1 inch above summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, low; at Bourke, 18 feet above summer level, and rising.

ASTRONOMICAL MEMORANDA FOR JUNE 15.

Sun rises at 7.4, sets at 4.56; Moon, 4.24 p.m., 5 a.m.; Mercury, 7.19 a.m., 5 p.m.; Venus, 3.47 a.m., 2.37 p.m.; Mars, 12.6 p.m., 11.49 p.m.; Jupiter, 12.21 p.m., 12.12 a.m.; Saturn, 8.15 a.m., 6.9 p.m. New Moon, 3rd; full moon, 16th.

High water at Fort Denison, June 15: 7.13 a.m., 7.36 p.m.

Albury	b	56	36	0
Armidale	b	50	38	0
Balranald	b	73	35	0
Bathurst	b	57	32	0
Bend'm'r	b	61	35	0
Bodalla ..	b	—	35	0
Bourke ..	b	51	39	0
C'md'n H	c	67	56	0
C. St. Geo	c	67	62	0·65
Carcoar ..	b	52	41	0
Casino ..	r	72	40	0
Cassilis ..	o	54	38	0
Clarence	c	68	50	0·05
C'nd'b'lin	b	59	39	0
Cooma ..	f	57	24	0
Coonab'n	n	65	31	0
C'namble	b	—	—	0
Cowra ..	n	57	37	0
Deniliq'n	b	66	36	0
Dubbo ..	b	60	36	0
Eden	b	60	47	0
Euston ..	b	70	53	0
Forbes ..	b	64	39	0
Gl'n Inn's	g	64	36	0
Goulburn	f	60	32	0
Grafton ..	g	74	45	0
Gulgong	b	64	51	0
Gunned'h	b	59	45	0
Hay	b	66	36	0
Hill End	b	—	—	0
Inverell ..	b	58	38	0
Kiandra	b	44	21	0
Lismore	c	76	46	0·02
Maitland	b	61	44	0·03
Marsdens	n	61	41	0
Menindie	b	62	43	0
Molong ..	n	64	38	0
Moree ..	b	75	44	0
Moruya ..	b	67	42	0
Moss Vale	g	51	37	0·33
Mt. Hope	b	49	42	0
M. Vict'ria	r	50	33	0·06
Mudgee ..	b	76	31	0
M'rr'm'bh	b	60	33	0
M'rr'r'ndi	b	55	—	0
Mus'b'r'k	b	65	37	0
Narrabri	b	64	38	0
Newcastle	c	70	48	0·02
Nowra ..	–	—	—	–
Orange ..	n	57	34	0
Picton ..	–	—	—	–
P. M'q'rie	r	66	49	0·48
P. St'ph'n	b	77	56	0·09
Q'nbeyan	n	54	35	0
Quirindi	n	63	42	0
Singleton	b	54	46	0·10
SYDNEY ..	r	61	50	0·68
Tamw'rth	b	63	35	0
Taralga ..	b	60	35	0
Taree	b	68	49	0·01
T'nt'rfield	b	63	33	0
Wagga ..	b	56	39	0
Walcha ..	b	54	29	0
Walgett ..	b	60	40	0
W'ntw'rth	b	66	41	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	66	51	0·84
Young ..	b	77	36	0



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine. On west coast, light S.E. winds; on south coast, westerly winds. Sea smooth. Extremes of barometers and temperature: Perth, 30·25; Carnavon, 30·12 and 76°; and Esperance Bay, 45°.

South Australia.—Generally fine and cold. On south coast, light easterly winds, and smooth sea; in Northern Territory, S.E. wind. No rain fallen. Extremes of barometers and temperature: On coast—Robe, 30·54 and 45°; Eucla, 30·32 and 54°; In Northern Territory—Port Darwin, 29·98 and 77°; and Daly Waters, 30·14 and 67°.

Victoria.—Generally fine but cloudy, with light E. and N. winds and moderate sea. Rainfall: Cape Otway, 0·17; Lakes Entrance, 0·02; Ballarat, 0·07. Heavy frost inland, and fog, mist, and heavy dew on coast. Extremes of barometers and temperature: Melbourne, 30·61; Wilson's Promontory, 30·51; Horsham, 56°; and Omeo, 35°.

Tasmania.—Generally fine, with light variable winds and moderate sea. No rain fallen. Extremes of barometers and temperature: Low Heads, 30·53 and 39°; Southport, 30·45 and 54°.

New Zealand.—On North Island generally fine, with N.W. winds and calm; at Bluff showery, with south wind. Barometers: Russell, 29·9; Wellington, 29·7; Bluff, 29·8.

New South Wales.—Generally fine, with light south and west winds, and smooth sea. Barometers generally very high; risen on coast, and fallen in western parts. Light rain has fallen along the coast, heaviest at Cape St. George, Wollongong, and Sydney. At 9 a.m. it was still raining at a few stations in north coast districts, as well as at Sydney and Mount Victoria. Severe frost and dense fog on mountains in south parts. The Darling now runs 19 feet 3 inches above summer level at Bourke, and continues to rise. Wilcannia reports the river has commenced to rise there. Extra Stations: Bundarra, maximum 66°, minimum 40°, fine and cool; Morangarell, maximum 48°, minimum 41°, fine and calm; Warrah, maximum 61°, minimum 35°, fine. (For further particulars see map.)

Queensland.—Generally fine, with light S.E. and S.W. winds and moderate sea. Misty rain, with strong S.E. wind and 52 points rain at Cooktown. Extremes of barometers and temperature: Brisbane, 30·34 and 59°; Townsville, 29·98; and Cooktown, 81°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.N.E., 23, fine, smooth sea, temperature 57°; Cape Otway, E., 8, fine, misty, moderate sea, temperature 54°; Melbourne, S.S.W., 8, fine, smooth sea, temperature 52°; Cape Schanck, W., 8, fine, but misty, smooth sea, temperature 56°; Wilson's Promontory, W.S.W., 13, fine but cloudy, smooth sea, temperature 55°; Lakes Entrance, W., 13, fine, moderate sea, temperature 56°.

New South Wales—Menindie, calm, fine, temperature 68°; Wentworth, E.S.E., 14, fine and clear, temperature 56°; Deniliquin, calm, fine, temperature 64°; Eden, calm, fine, temperature 56°; Moruya, E.S.E., 14, fine, smooth sea, temperature 59°; Cape St. George, S., 42, fine, moderate sea, temperature 57°; Sydney, S.W., 5, overcast, smooth sea, temperature 55°; Newcastle, S.S.E., 14, fine, smooth sea, temperature 61°; Port Macquarie, S.S.W., 17, showery, smooth sea, temperature 62°; Clarence River, S., 28, fine, rough sea, temperature 65°; Walgett, S.E., 14, fine, temperature 63°; Dubbo, N.E., 14, fine, temperature 58°; Goulburn, calm, fine, temperature 56°.

STATE OF RIVERS.

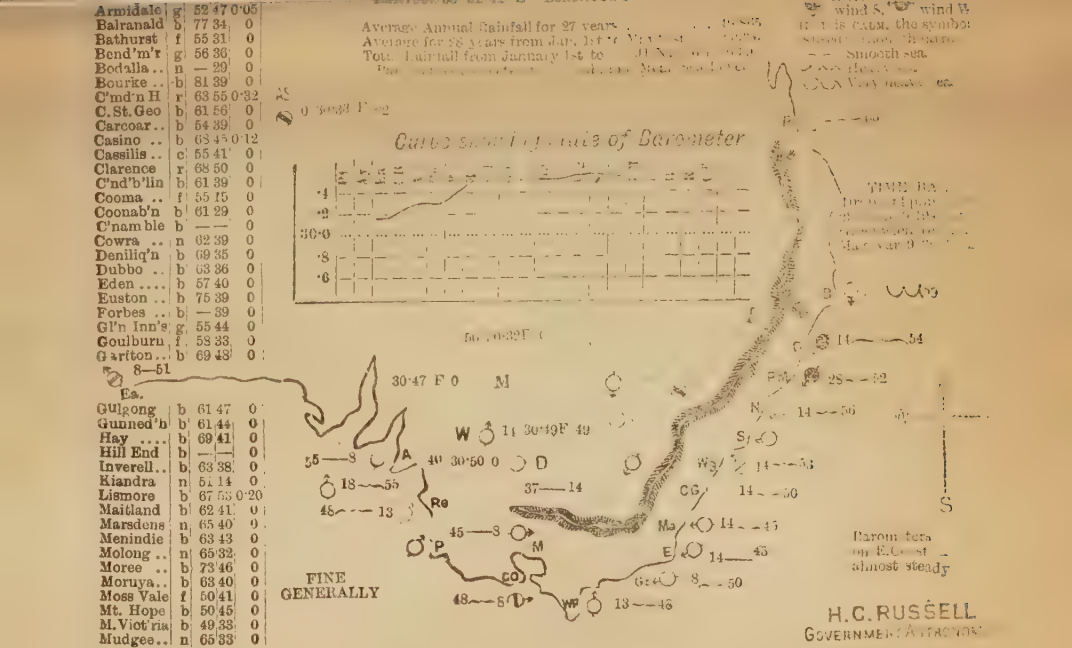
Murrumbidgee: At Wagga, 9 inches above summer level; at Hay, summer level; at Balranald, 11 inches above summer level. Murray: At Albury, 2 feet above summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 3 inches above summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, commencing to rise; at Bourke, 19 feet 3 inches above summer level, and rising.

ASTRONOMICAL MEMORANDA FOR JUNE 16.

Sun rises at 7.5, sets at 4.56; Moon, 5.11 p.m., 5.58 a.m.; Mercury, 7.25 a.m., 5.5 p.m.; Venus, 3.48 a.m., 2.36 p.m.; Mars, 12.3 p.m., 11.48 p.m.; Jupiter, 12.17 p.m., 12.8 a.m.; Saturn, 8.12 a.m., 6.6 p.m. New Moon, 3rd; full moon, 16th.

High water at Fort Denison, June 16: 7.58 a.m., 8.19 p.m.

Armidale	g	52	47	0·05
Balranald	b	77	34	0
Bathurst	f	55	31	0
Bend'm'r	g	56	36	0
Bodalla ..	n	—	29	0
Bourke ..	b	81	39	0
C'md'n H	r	63	55	0·32
C. St. Geo	b	61	56	0
Carcoar ..	b	54	39	0
Casino ..	b	63	45	0·12
Cassilis ..	c	55	41	0
Clarence	r	68	50	0
C'nd'b'lin	b	61	39	0
Cooma ..	f	55	15	0
Coonab'n	b	61	29	0
C'namble	b	—	—	0
Cowra ..	n	62	39	0
Deniliq'n	b	69	35	0
Dubbo ..	b	63	36	0
Eden	b	57	40	0
Euston ..	b	75	39	0
Forbes ..	b	—	39	0
Gl'n Inn's	g	55	44	0
Goulburn	f	58	33	0
Grafton ..	b	69	48	0
Gulgong	b	61	47	0
Gunned'h	b	61	44	0
Hay	b	69	41	0
Hill End	b	—	—	0
Inverell ..	b	63	38	0
Kiandra	n	51	14	0
Lismore	b	67	55	0·20
Maitland	b	62	41	0
Marsdens	n	65	40	0
Menindie	b	63	43	0
Molong ..	n	65	32	0
Moree ..	b	73	46	0
Moruya ..	b	63	40	0
Moss Vale	f	50	41	0
Mt. Hope	b	50	45	0
M. Vict'ria	b	49	33	0
Mudgee ..	n	65	33	0
M'rr'm'bh	b	66	33	0
M'rr'r'ndi	n	56	36	0
Mus'b'rk	f	67	36	0
Narrabri	b	64	37	0
Newcastle	b	66	48	0
Nowra ..	–	—	—	–
Orange ..	n	50	32	0
Picton ..	f	46	35	0·07
P. M'q'rie	r	61	47	0·48
P. St'ph'n	b	79	55	0
Q'nbeyan	n	51	34	0
Quirindi	n	70	42	0
Singleton	f	60	46	0
SYDNEY ..	h	55	49	0·14
Ta'nw'rth	b	61	35	0
Taralga ..	f	71	42	0
Taree	g	63	52	0
T'nt'rfield	g	58	48	0
Wagga ..	b	60	30	0
Walcha ..	g	51	36	0·02
Walgett ..	b	63	36	0
W'ntw'rth	b	67	39	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	64	51	0·03
Young ..	b	76	37	0



NOTES EXPLANATORY OF MAP.

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South Australia.—Generally fine and cold, with north winds on coast; south winds inland and in Northern Territory; fallen barometers, and moderate sea. No rain fallen. Extremes of barometers and temperature: On coast—M'Donnell Bay, 30·44 and 43°; Eucla, 30·18; and Adelaide, 55°. In Northern Territory—Daly Waters, 30·05 and 74°; Port Darwin, 29·89 and 77°.

Victoria.—Generally fine and very cold, with light east and north winds, fallen barometers, and smooth sea. On coast misty and heavy dew; inland hoar frost generally. No rain fallen. Extremes of barometers and temperature: Omeo, 30·55 and 30°: Hamilton, 30·36; and Horsham, 54°.

Tasmania.—In northern parts generally fine, with light east winds, risen barometers, and smooth sea. Foggy at Low Heads; dead calm sea off Falmouth, and two points rain at Circular Heads. Extremes of barometers and temperature: Falmouth, 30·48 and 40°; Circular Heads, 30·43 and 50°.

New Zealand.—Generally showery, with southerly winds, except at Russell where it is fine. Barometers: Russell, 29·9; Wellington, 29·7; and Bluff, 29·8.

New South Wales.—Generally fine and cold, with light south and west winds, and smooth sea. Barometers are high generally, risen on coast very slightly, but fallen in western parts along mountain, principally west and south of Sydney, heavy frost and dense fog prevailed. Light rain fallen along the coast, heaviest at Port Macquarie, at which place and Clarence it was still raining at 9 a.m. Extremes of barometers and temperature at 9 a.m.: Wollongong, 30·56; Forbes, 30·31; Bourke, 56°; and Cooma, 24°. Extra Stations: Bundarra, maximum 66°, minimum 42°, fine and calm; Morangarell, maximum 61°, minimum 34°, fine and frosty; Warrah, maximum 71°, calm, fine, and frosty. For further particulars see map.

Queensland.—Generally fine, with light S.E. and S. winds, risen barometers, and rough sea. Rainfall: Cooktown, 2·40; Brisbane, 0·01. Extremes of barometers and temperature: Brisbane, 30·38 and 59°; Townsville, 29·94; and Cooktown, 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.E., 18, fine, smooth sea, temperature 61°; Cape Otway, N., 8, fine and hazy, smooth sea, temperature 57°; Melbourne, N., 8, fine, but cloudy, temperature 60°; Cape Schanck, N.W., 8, fine, but misty, smooth sea, temperature 55°; Wilson's Promontory, N.W., 13, fine but cloudy, smooth sea, temperature 55°; Lakes Entrance, W., 13, fine, but cloudy, moderate sea, temperature 52°.

New South Wales.—Menindie, calm, fine and clear, temperature 60°; Wentworth, N., fine and clear, temperature 58°; Deniliquin, calm, fine and clear, temperature 64°; Eden, N.E., 14, fine, smooth sea, temperature 55°; Moruya, N.N.E., 14, fine, smooth sea, temperature 60°; Cape St. George, N., 44, fine, smooth sea, temperature 60°; Sydney, N., 3, cloudy and dull, smooth sea, temperature 52°; Newcastle, S.E., 14, fine, smooth sea, temperature 62°; Port Macquarie, S.W., 14, raining, smooth sea, temperature 61°; Clarence River, S., 14, showery, moderate sea, temperature 60°; Dubbo, E., 14, fine, temperature 61°; Goulburn, calm, fine, temperature 56°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 9 inches above summer level; at Hay, summer level; at Balranald, 11 inches above summer level. Murray: At Albury, 1 foot 10 inches above summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 4 inches above summer level; at Menindie, low; at Wilcannia, below summer level, but rising; at Bourke, 20 feet above summer level, and rising.

ASTRONOMICAL MEMORANDA FOR JUNE 17.

Sun rises at 7.5, sets at 4.56; Moon, 6.1 p.m., 6.53 a.m.; Mercury, 7.31 a.m., 5.11 p.m.; Venus, 3.50 a.m., 2.36 p.m.; Mars, 12.0 p.m., 11.46 p.m.; Jupiter, 12.14 p.m., 12.5 a.m.; Saturn, 8.9 a.m., 6.3 p.m. New Moon, 3rd; full moon, 16th.

High water at Fort Denison, June 17: 8.40 a.m., 9.0 p.m.

Armidale	b	55	48	0
Balranald	g	77	36	0
Bathurst	f	60	30	0
Bend'm'r	b	58	38	0
Bodalla ..	n	—	28	0
Bourke ..	g	70	54	0
C'md'n H	c	64	56	0·17
C. St. Geo	b	63	59	0
Carcoar ..	n	52	35	0
Casino ..	g	72	43	0·14
Cassilis ..	o	55	42	0
Clarence	b	65	56	0·17
C'md'b'lin	b	64	44	0
Coona ..	n	69	18	0
Coonab'n	b	64	32	0
C'nam ble	g	—	—	0
Cowra ..	n	61	41	0
Deniliq'n	g	68	37	0
Dubbo ..	b	65	41	0
Eden	b	57	42	0
Euston ..	g	76	42	0
Forbes ..	b	63	41	0
Gl'n Inn's	g	57	45	0
Goulburn	b	56	27	0
Garfton ..	f	70	50	0
Ga.				
Gu'lgong	b	61	47	0
Gunned'h	b	61	45	0
Hay	g	63	41	0
Hill End	b	—	—	—
Inverell ..	b	62	38	0
Kiandra	n	53	14	0
Lismore	r	70	52	0·02
Maitland	f	59	42	0
Marsdens	n	68	40	0
Menindie	g	65	54	0
Molong ..	n	62	34	0
Moree ..	g	75	45	0
Moruya ..	b	65	40	0
Moss Vale	b	51	42	0
Mt. Hope	o	54	50	0
M. Vict'ria	g	50	33	0
Mudgee ..	n	71	38	0
M'rr'm'bh	b	67	40	0
M'rr'ndi	n	55	37	0
Mus'br'k	f	61	36	0
Narrabri	h	65	36	0
Newcastle	b	66	55	0
Nowra ..	—	—	—	—
Orange ..	n	50	35	0
Picton ..	b	60	39	0
P. M'q'rie	r	60	51	1·10
P. St'ph'n	b	78	56	0
Q'nbeyan	n	50	34	0
Quirindi	b	69	44	0
Singleton	f	60	45	0
Sydney ..	c	58	50	0·01
Tamw'rth	b	63	35	0
Taralga ..	n	55	28	0
Taree	c	65	52	0·04
T'nt'rfield	g	59	41	0
Wagga ..	g	61	35	0
Walcha ..	b	52	36	0
Walgett ..	g	64	48	0
W'ntw'rth	g	69	48	0
Wilcannia	c	—	—	0
W'll'ng'ng	b	64	49	0
Young ..	c	78	36	0

Average Annual Rainfall for 27 years ..... 49·865
Average for 28 years from Jan. 1st to Nov. 31st ..... 25·336
Total Rainfall from January 1st to JUNE 17th 16·910
Barometers corrected to Mean Sea Level

Storm, wind S.
Rain, wind W.
If it is CALM, the symbol is used without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.

Curve showing state of Barometer.

TIME BALL
Drops at 1 p.m. SMT
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35' 37" E

Barometers on E. Coast — fallen about.

FINE GENERALLY

H. C. RUSSELL.
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, raining; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. Min. the corresponding minimum temperature. Rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the direction of the wind is indicated like a vane pointing to the direction from which the wind is blowing. A clear circle with it means fine weather; a circle with bar, cloudy weather; a flag, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ad, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Mx, Moruya; C G Jervis Bay; [illegible]; S, Sydney; N. Newcastle; P M, Port Macquarie; C, Clarence River; [illegible]; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is shown by figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast fine, with E. and S.E. winds; on south coast cloudy, with S. and W. winds; sea moderate generally, but rough off Esperance Bay. Rainfall: Albany and Esperance Bay, each 14 points. Extremes of barometers and temperature; Esperance Bay, 30·23 and 47°; Geraldtown, 30·42 and 68°.

South Australia.—On south coast cloudy and gloomy, with southerly winds; fallen barometers, and smooth sea. Raining at Port Augusta; light rainfall in N.E., heaviest at Hawken, where 75 points fell; Farina and Peake report 45 and 21 points respectively. In Northern Territory generally cloudy and cold, with S.E. winds. Extremes of barometers and temperature: On coast—Eucla, 30·25 and 59°; Port Augusta, 30·09; and M'Donnell Bay, 43°. In Northern Territory—Daly Waters, 30·05 and 75°; Port Darwin, 29·86 and 79°.

Victoria.—Generally cloudy and gloomy, with fresh squally northerly winds, fallen barometers, and smooth sea. Heavy rain at Horsham, misty at Cape Otway, and frosty inland. Rainfall: Horsham, 0·15. Extremes of barometers and temperature: Cape Schanck, 30·30; Portland, 30·15; Horsham, 55°; and Hamilton, 48°.

Tasmania.—Generally cloudy and gloomy, with light north and west winds, and moderate sea; foggy at Hobart. Extremes of barometers and temperature: Circular Heads, 30·22 and 45°; Southport, 30·05; and Hobart, 38°.

New Zealand.—Generally fine, with south and west winds, and rising barometers; showery, with S.W. wind blowing 48 miles per hour, and rough sea at Gisbourne. Barometers: Russell, 30·1; Wellington, 30·0; and Bluff, 30·0.

Queensland.—In south fine, with E. and S.W. winds and risen barometers. In north cloudy and raining, with S.E. winds, sea moderate. Rainfall: Brisbane, 0·01; Rockhampton, 0·25; Cooktown, 0·52. At the last place it was still raining at 9 a.m. Extremes of barometers and temperature: Brisbane, 30·33 and 60°; Townsville, 29·85; and Cooktown, 80°.

New South Wales.—Generally cloudy and unsettled, with falling barometers, light variable winds, and smooth sea; gloomy and threatening rain in S. and S.W. parts, with east winds; heavy frost on mountains west and south of Sydney; dense fog in coast districts, especially on the Hunter River; light rain has fallen in north coast districts, and at 9 a.m. it was still showery at mouth of Richmond River and at Port Macquarie. The Darling is still rising at Bourke. Extra stations:—Bundarra, max. 68°, min. 39°, fine and cool; Morangarell, max. 64°, min. 35°, dull; Warrah, max. 70°, fine and clear. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 13, fine, smooth sea, temperature 60°; Cape Otway, N.W., 8, cloudy and misty, smooth sea, temperature 61°; Melbourne, N., 8, cloudy and gloomy, temperature 57°; Cape Schanck, N.N.W., 13, cloudy and misty, smooth sea, temperature 55°; Wilson's Promontory, W., 13, cloudy and gloomy, smooth sea, temperature 55°; Lakes Entrance, N.E., cloudy, smooth sea, temperature 60°.

New South Wales.—Menindie, E., 14, raining hard, temperature 61°; Wentworth, S.E., 14, dull and overcast, temperature 57°; Deniliquin, calm, raining temperature 63°; Moruya, N.E., 28, fine, smooth sea, temperature 64°; Cape St. George, N., 24, fine, smooth sea, temperature 65°; Sydney, N.E., 10, fine but cloudy, smooth sea, temperature 61°; Newcastle, N.W., 14, fine, smooth sea, temperature 67°; Port Macquarie, N.N.E., 14, cloudy, smooth sea, temperature 66°; Clarence River, calm, dull, smooth sea, temperature 66°; Walgett, calm, cloudy, temperature 63°; Dubbo, calm, cloudy, temperature 62°; Goulburn, calm, fine, temperature 57°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot above summer level: at Hay, summer level; at Balranald, 10 inches above summer level. Murray: At Albury, 1 foot 8 inches above summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 5 inches above summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, below summer level; at Bourke, 20 feet 9 inches above summer level, rising slowly.

ASTRONOMICAL MEMORANDA FOR JUNE 18.

Sun rises at 7.5, sets at 4.56; Moon, 6.52 p.m., 7.43 a.m.; Mercury, 7.37 a.m., 5.16 p.m.; Venus, 3.51 a.m., 2.35 p.m.; Mars, 11.57 a.m., 11.45 p.m.; Jupiter, 12.10 p.m., 12.1 a.m.; Saturn, 8.5 a.m., 5.59 p.m. New Moon, 3rd; full moon, 16th.
High water at Fort Denison, June 18: 9.19 a.m., 9.38 p.m.

Armidale	c	56	50	0·09
Balranald	r	56	42	0·52
Bathurst	r	60	34	0·45
Bend'm'r	r	60	48	0·16
Bodalla ..	g	—	54	0·12
Bourke ..	b	67	56	1·49
C'md'n H	r	66	56	0
C. St. Geo	c	63	03	0
Carcoar ..	r	53	41	0·25
Casino ..	g	70	54	0·01
Cassilis ..	r	57	43	0·18
Clarence	c	70	59	0·05
C'nd'b'lin	g	61	46	0·35
Cooma ..	c	61	35	0·17
Coonab'n	r	65	40	0·78
C'namble	b	—	—	0
Cowra ..	c	62	39	0·31
Denilig'n	r	60	44	0·66
Dubbo ..	r	63	50	1·07
Eden	g	57	45	0
Euston ..	g	61	48	0
Forbes ..	b	61	37	0·19
Gl'n Inn's	g	62	46	0·04
Goulburn	g	65	37	0·07
Grafton ..	r	69	54	0.08
Gulgong	r	62	48	0·48
Gunned'h	r	63	48	0
Hay	r	65	51	1·19
Hill End	r	—	—	0·42
Inverell ..	g	63	43	0·05
Kiandra	r	50	35	0·18
Lismore	g	74	55	0·01
Maitland	r	63	47	0·03
Marsdens	g	65	43	0·32
Menindie	c	57	53	1·37
Molong ..	g	62	46	0·57
Moree ..	r	70	51	0·08
Moruya ..	g	70	49	0·06
Moss Vale	u	60	49	0·14
Mt. Hope	g	57	54	0·21
M. Vict'ria	r	58	33	0·14
Mudgee ..	r	70	43	0·43
M'rr'm'bh	u	68	40	0·33
M'rr'r'ndi	r	56	41	0·17
Mus'b'r'k	d	65	39	0·15
Narrabri	r	64	35	0·34
Newcastle	r	71	56	0·01
Nowra ..	—	—	—	—
Orange ..	r	53	40	0·61
Picton ..	d	62	39	0·14
P. M'q'rie	r	66	53	0·03
P. St'ph'n	r	76	56	0
Q'nbeyan	r	53	34	0·12
Quirindi	r	69	47	0·12
Singleton	r	61	46	0·07
SYDNEY ..	r	62	54	0·05
Tamw'rth	r	65	44	0·26
Taralga ..	r	72	35	0·21
Taree	r	67	54	0·03
T'nt'rfield	g	63	49	0
Wagga ..	g	64	43	0·32
Walcha ..	r	55	37	0·10
Walgett ..	g	64	52	0·21
W'ntw'rth	g	58	49	0·36
Wilcannia	c	—	—	0
W'll'm'ng	g	68	52	0·08
Young ..	g	75	37	0·16

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to May 31st 25·356
Total Rainfall from January 1st to JUNE 18th 10·490
Barometers corrected to 32° Fah. and Mean Sea Level

wind S.
wind W.
If it is CALM, the symbol (sunset without the arrow
Smooth sea.
Heavy sea
Very heavy sea.

Curve showing state of Barometer.

TIME BALL
Dropped 1 p.m. S.M.T.
Sh. 55m. 9·1[illegible] a.m.
Greenwich Mean Time
Mag. Var. 9 35° E.

FINE GENERALLY

Barometers on E. Coast — fallen about 0·15

H. C. RUSSELL
Government Astronomer

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky, c, detached clouds; d, drizzle; e, rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Max., gives the maximum temperature for previous 24 hours. Min. the corresponding minimum temperature for the same for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer at Menindie, Bourke, and Wentworth; Wentworth and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast fine, with light easterly winds; on south coast cloudy and gloomy, with west winds; no rain fallen. Extremes of barometers and temperature: Perth, 30·45 and 42°; Carnarvon, 30·21 and 75°.

South Australia.—On south coast cloudy, gloomy, and cold, with light south and S.W. winds, steady barometers, and moderate sea. Light rain at Cape Borda and M'Donnell Bay, also between Quorn and Hergott. Rainfall: Tarina, 0·53; Blinman, 0·66; Streaky Bay and Eucla each one point. In Northern Territory cloudy and gloomy, with S.E. winds. Extremes of barometers and temperature: On coast—Eucla, 30·43 and 57°; M'Donnell Bay, 30·27 and 52°. In Northern Territory—Daly Waters, 30·11 and 68° (rainfall, 0·23); Port Darwin, 29·88 and 77°.

Victoria.—Generally cloudy, with light westerly winds, fallen barometers, and moderate sea. Foggy and rough sea at Cape Otway, squally at Wilson's Promontory. Rainfall: Horsham, 0·08; Echuca, 0·21; and Wilson's Promontory, 0·02. Extremes of barometers and temperature: Ballarat, 30·30 and 41°; Cape Schanck, 30·21 and 55°; misty at Cape Schanck; foggy at Ballarat and Horsham.

Tasmania.—Generally cloudy, with fresh westerly winds, fallen barometers, and moderate sea. Rainfall: Circular Heads, 0·14; Low Heads, 0·07; Hobart, 0·02; and Southport, 0·10. Extremes of barometers and temperature: Circular Heads, 30·15 and 49°; Southport, 30·02 and 55°.

New Zealand.—Generally fine, with variable winds and calm, and fallen barometers. Barometers: Russell, 30·3; Wellington 30·1; and Bluff, 30·0.

New South Wales.—Generally raining, overcast, and threatening, with light variable winds and calm; fallen barometers, mild temperature, and smooth sea. The rainfall during the last 24 hours, though light, has been general. The heaviest falls occurred on the Darling, with the exception of one, viz., Hay, where over an inch fell. At 9 o'clock this morning it was raining generally, more or less heavily, in the coastal and central territorial divisions of the colony, but principally west, north-west, and north of Sydney; also along the Murrumbidgee and Murray Rivers. Extra stations:—Temora, 32 points of rain, and still raining lightly; Camden, 20 points, and raining steadily; Pooncarie, 124 points, and drizzling; Bundarra, max. 65°, min. 45°, raining; Morangarell, max. 65°, min. 44°, rainfall 0·30; Warrah, max. 67°, rainfall 0·30. For further particulars see map.

Queensland.—Generally fine, with southerly winds, fallen barometers, and smooth sea; rough sea off Cape Moreton, heavy showers at Cooktown, and cloudy at Brisbane. Rainfall: Cooktown, 0·42; Rockhampton, 0·15; Brisbane, 0·01. Extremes of barometers and temperature: Brisbane, 30·26 and 59°; Townsville, 29·83; and Cooktown, 86°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.S.W., 18, fine but cloudy, smooth sea, temperature 57°; Cape Otway, W.S.W., 8, fine and misty, rough sea, temperature 56°; Melbourne, S.W., 8, fine, temperature 56°; Wilson's Promontory, W., 23, squally and cloudy, smooth sea, temperature 54°; Lakes Entrance, W., 13, fine, moderate sea, temperature 58°.

New South Wales.—Menindie, S.S.E., 14, dull, temperature 62°; Wentworth, S., 14, threatening, temperature 54°; Deniliquin, calm, dull, temperature 63°; Eden, S.S.E., 14, fine, smooth sea, temperature 64°; Moruya, S.W., 14, gloomy and overcast, smooth sea, temperature 55°; Cape St. George, N.W., 14, raining, smooth sea, temperature 58°; Sydney, W., 3, overcast and drizzling, smooth sea, temperature 56°; Newcastle, W., 14, raining, smooth sea, temperature 67°; Port Macquarie, S.W., 14, raining, smooth sea, temperature 61°; Clarence River, S.W., 14, raining, smooth sea, temperature 65°; Walgett, N.N.W., showery, temperature 61°; Dubbo, calm, showery, temperature 62°; Goulburn, calm, dull, temperature 56°.

STATE OF RIVERS.

Murrumbidgee: At Wagga, 1 foot 6 inches above summer level; at Hay, summer level; at Balranald, 8 inches above summer level. Murray: At Albury, 1 foot above summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 5 inches above summer level; at Pooncarie, low; at Menindie, low; at Wilcannia, 7 feet above summer level; at Bourke, 21 feet 9 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JUNE 19.

Sun rises at 7.6, sets at 4.56; Moon, 7.45 p.m., 8.30 a.m.; Mercury, 7.45 a.m., 5.21 p.m.; Venus, 3.53 a.m., 2.35 p.m.; Mars, 11.54 a.m., 11.43 p.m.; Jupiter, 12.6 p.m., 11.58 p.m.; Saturn, 8.2 a.m., 5.56 p.m. New Moon, 3rd.

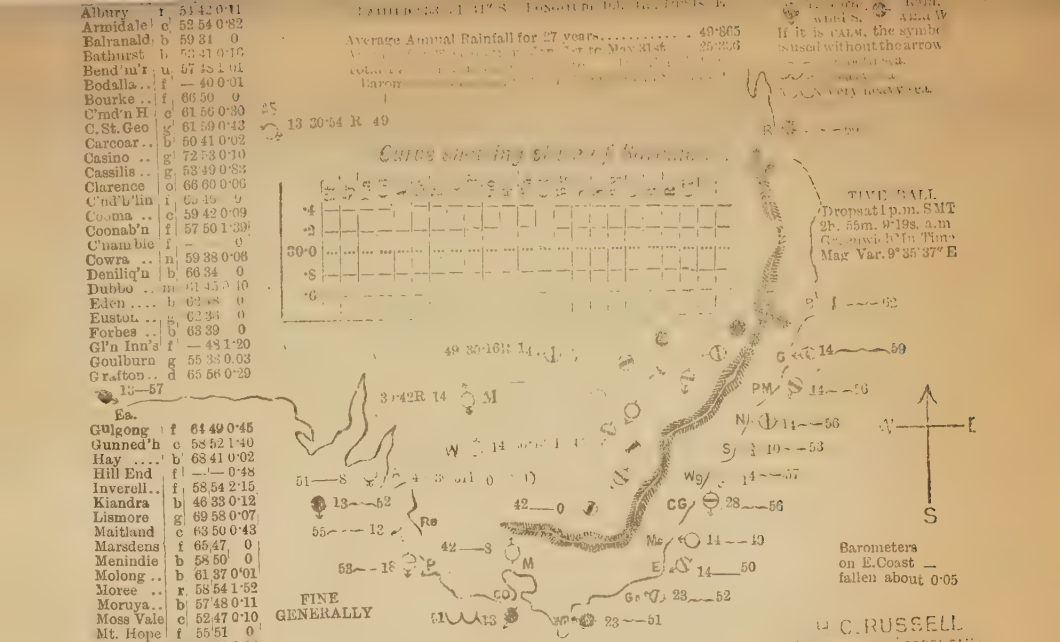
High water at Fort Denison, June 19: 9.56 a.m., 10.14 p.m.

Albury	r	53	4 2 0·11
Armidale	c	52	54 0·82
Balranald	b	59	31 0
Bathurst	b	53	41 0·16
Bend'm'r	u	57	48 1·01
Bodalla	f	—	40 0·01
Bourke	f	66	50 0
C'md'n H	c	61	56 0·30
C.St.Geo	g	61	59 0·43
Carcoar	b	50	41 0·02
Casino	g	72	58 0·10
Cassilis	g	53	49 0·88
Clarence	o	66	60 0·06
C'nd'b'lin	r	60	45 9
Cooma	c	59	42 0·09
Coonab'n	f	57	50 1·39
C'namble	f	—	0
Cowra	n	59	38 0·06
Deniliq'n	b	66	34 0
Dubbo	m	61	45 0·10
Eden	b	62	48 0
Euston	g	62	36 0
Forbes	b	63	39 0
Gl'n Inn's	f	—	48 1·20
Goulburn	g	55	38 0·03
Grafton	d	65	56 0·29

Ea.				
Gulgong	f	61	49	0·45
Gunned'h	c	58	52	1·40
Hay	b	63	41	0·02
Hill End	f	—	—	0·48
Inverell	f	58	54	2·15
Kiandra	b	46	33	0·12
Lismore	g	69	58	0·07
Maitland	c	63	50	0·43
Marsdens	f	65	47	0
Menindie	b	58	50	0
Molong	b	61	37	0·01
Moree	r	58	54	1·52
Moruya	b	57	48	0·11
Moss Vale	c	52	47	0·10
Mt. Hope	f	55	51	0
M.View'a	f	51	38	0·08
Mudgee	f	63	48	0·13

M'rr'm'bh	b	62	40	0
M'rr'r'ndi	f	56	45	1·24
Mus'lbr'k	g	64	42	0·72
Narrabri	g	61	43	0·95
Newcastle	c	64	52	0·44
Nowra	—	—	—	—
Orange	b	53	37	0·01
Picton	b	55	44	0·14
P. M'q'rie	g	59	53	0·48
P. St'ph'n	b	61	50	0·72
Q'nbeyan	g	54	43	0
Quirindi	f	58	49	0·98
Singleton	u	56	51	0·50
SYDNEY	o	56	53	0·20
Tamw'rth	g	57	40	1·12
Taralga	u	79	41	0
Taree	g	59	54	0·22
T'nt'rfield	g	59	52	0·47
Wagga	b	62	43	0
Walcha	f	51	43	0·90
Walgett	f	63	52	0·35
W'ntw'rth	b	62	39	0
Wilcannia	g	—	—	0
W'll'ng'ng	c	59	54	0·02
Young	n	73	62	0

Average Annual Rainfall for 27 years ..... 49·865
... to May 31st ..... 25·326



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ka, Fowler's Bay; Ad, Adelaide; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Esperance Bay, calm, fine, and smooth sea; barometer 30·51, and temperature 39°.

South Australia.—On coast, cloudy, with rain, fog and frost in places, light southerly winds, risen barometers, and moderate sea. Rainfall: Cape Borda, 0·13; Eucla, 0·20; Port Darwin, 0·22. In Northern Territory, fine, with S.E. winds. Extremes of barometers and temperature: On coast—Eucla, 30·51 and 57°, and M'Donnell Bay, 30·34 and 52°; in Northern Territory, Daly Waters, 30·20 and 63°; Port Darwin, 29·95 and 74°.

Victoria.—Generally cloudy, with misty rain, and much fog; fresh, squally, west and south winds; and moderate to rough sea. Rainfall, generally from 1 to 12 points. Extremes of barometers and temperature: Horsham, 30·35 and 57°; Omeo, 30·23 and 42°.

Tasmania.—Generally cloudy, with fresh westerly winds; rough sea off Southport, and moderate elsewhere. Rainfall: Circular Heads, 0·02; Southport, 0·05; showery at Circular Heads. Extremes of barometers and temperature: Circular Heads, 30·16; Southport, 29·97 and 53°; and Falmouth, 44°.

New Zealand.—Generally fine, with west and N.W. winds. Barometers: Russell, 30·2; Wellington, 29·9; and Bluff, 29·7.

New South Wales.—In northern parts generally overcast, threatening and foggy, light rain in the extreme north both sides of range. In southern parts fine, with clouds in places; fog and frost on western slope of range and in extreme south near coast. During the last 24 hours moderately heavy rain has fallen, especially on the Namoi and Gwydir rivers near the range; 10 stations in these districts report above an inch of rain; one, Inverell, over 2 inches. Winds are, on the coast, westerly; inland, calms prevail. Sea smooth. Extra stations:—Bundarra, max. 56°, min. 54°, rainfall 1·66, and foggy; Morangarell, max. 64°, min. 44°, fine; Warrah, max. 61°, rainfall 1·10, and cloudy; Camden, 15 points rain, and fine weather. For further particulars see map.

Queensland.—From Rockhampton to Cooktown, heavy rain with southerly winds; in south parts cloudy, with W. and N.W. winds; sea moderate. Rainfall: Cooktown, 1·49; Townsville, 0·76; Rockhampton, 0·08; Brisbane, 0·01; Cape Moreton, 0·05. Extremes of barometers and temperature: Brisbane, 30·17 and 62° and Cooktown, 29·77 and 81°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 30, threatening rain, smooth sea, temperature 57°; Cape Otway, W.S.W., 6, showery, rough sea, temperature 53°; Wilson's Promontory, W., 24, squally with rain, rough sea, temperature 54°.

New South Wales.—Menindie, S., cloudy, temperature 58°; Wentworth, S.S.W., cloudy, temperature 50°; Deniliquin, calm, fine, temperature 62°; Eden, S.W., 14, fine, smooth sea, temperature 60°; Moruya, S., 14, fine, smooth sea, temperature 65°; Cape St. George, S.S.E., 14, fine, smooth sea, temperature 61°; Sydney, S.S.E., 10, cloudy, smooth sea, temperature 62°; Newcastle, S.W., 10, fine, smooth sea, temperature 63°; Port Macquarie, S.S.W., 14, cloudy, smooth sea, temperature 65°; Clarence River, calm, raining, smooth sea, temperature 65°; Walgett, S., cloudy, temperature 61°; Dubbo, N.E., fine, temperature 59°; Goulburn, calm, fine, temperature 58°.

Sunday morning.—Grafton, raining, 0·17 points fallen; Clarence Heads, cloudy, rain 0·56; Casino, like rain, rain 0·52.

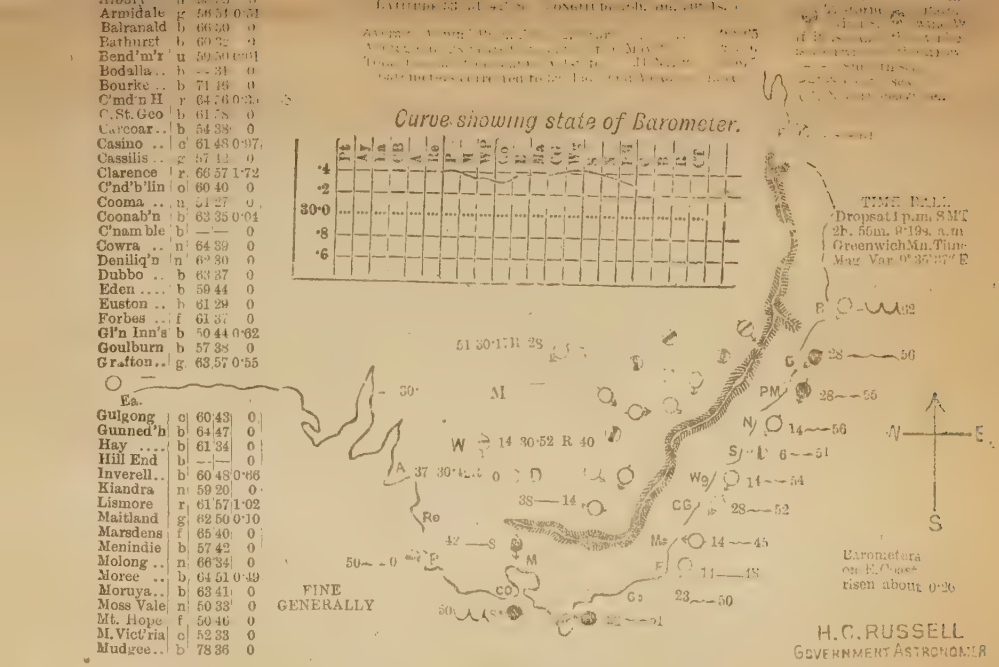
STATE OF RIVERS.

Tilpa, 19 feet 2 inches; Gundagai, below summer level; Barwon, 35 feet 6 inches; Mogil, 19 feet; Mungindi, 13 feet 6 inches; Brewarrina, 24 feet; Goodoga, 6 feet 10 inches; Louth, 17 feet. Murrumbidgee: At Wagga, 1 foot 6 inches above summer level; at Hay, below summer level; at Balranald, 8 inches above summer level. Murray: At Albury, 11 inches above summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 5 inches above summer level; at Pooncarie, below summer level; at Menindie, low; at Wilcannia, 11 feet above summer level; at Bourke, 22 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JUNE 21.

Sun rises at 7.6, sets at 4.57; Moon, 9.30 p.m., 9.53 a.m.; Mercury, 7.54 a.m., 5.32 p.m.; Venus, 3.56 a.m., 2.34 p.m.; Mars, 11.48 a.m., 11.40 p.m.; Jupiter, 11.59 a.m., 11.51 p.m.; Saturn, 7.55 a.m., 5.49 p.m. New Moon, 3rd, Full Moon 16th.

High water at Fort Denison, June 21: 11·7 a.m., 11.25 p.m.



Armidale	g	59·51	0·51
Balranald	b	66·50	0
Bathurst	b	69·??	0
Bend'm'r	u	59·50	0·04
Bodalla ..	b	— —	0
Bourke ..	b	71 46	0
C'md'n H	r	64 ?6	0·??
C. St. Geo	b	61 58	0
Carcoar ..	b	54 38	0
Casino ..	c	61 48	0·97
Cassilis ..	g	57 42	0
Clarence	r	66 57	1·72
C'nd'b'lin	o	60 40	0
Cooma ..	u	51 27	0
Coonab'n	b	63 35	0·04
C'namble	b	— —	0
Cowra ..	n	64 39	0
Deniliq'n	n	66 30	0
Dubbo ..	b	63 37	0
Eden	b	59 44	0
Euston ..	b	61 29	0
Forbes ...	f	61 37	0
Gl'n Inn's	b	50 44	0·62
Goulburn	b	57 38	0
Grafton ..	g	63 57	0·55

Ea.				
Gulgong	c	60	43	0
Gunned'h	b	64	47	0
Hay	b	61	34	0
Hill End	b	—	—	0
Inverell..	b	60	48	0·66
Kiandra	n	59	20	0
Lismore	r	61	57	1·02
Maitland	g	62	50	0·10
Marsdens	f	65	40	0
Menindie	b	57	42	0
Molong ..	n	66	34	0
Moree ..	b	64	51	0·49
Moruya ..	b	63	41	0
Moss Vale	n	50	33	0
Mt. Hope	f	50	46	0
M. Vict'ria	c	52	33	0
Mudgee ..	b	78	36	0

M'rr'm'bh	b	68	35	0
M'rr'n'di	c	57	46	0
Mus'lbr'k	g	64	41	0·13
Narrabri	c	66	42	0·04
Newcastle	b	63	53	0·30
Nowra ..	-	-	-	-
Orange ..	b	54	32	0
Picton ..	n	69	36	0
P. M'q'rie	r	63	36	0·34
P. St'ph'n	r	61	46	0·43
Q'nbeyan	n	55	35	0
Quirindi	n	64	44	0
Singleton	d	60	51	0·15
SYDNEY ..	d	61	59	0·02
Tamw'rth	b	60	41	0
Taralga ..	f	70	32	0
Taree	b	65	54	0
T'nt'rfield	g	58	48	0·45
Wagga ..	n	64	39	0
Walcha ..	g	55	40	0·04
Walgett..	b	62	46	0
W'ntw'rth	c	52	37	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	59	51	0
Young ..	n	82	35	0

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards, northern where preceding them, and southerly following.

No telegrams from Western colonies.

Victoria.—Generally cloudy and gloomy, with rain in places, and much fog; fresh westerly winds, risen barometers, and moderate to rough sea. Misty rain at Melbourne, Wilson's Promontory, and Cape Otway. Dense fog and mist along the coast. Rainfall: Cape Otway, 0·21; Cape Schanck, 0·21; Wilson's Promontory, 0·06; Melbourne, 0·08. Extremes of barometers and temperature: Melbourne, 30·45; Omeo, 30·23 and 39°; and Horsham, 54°.

Tasmania.—Generally fine, with light south and fresh winds and smooth sea. No rain has fallen. Extremes of barometers and temperature: Low Heads, 30·34 and 43°; Falmouth, 30·25 and 50°.

New Zealand.—Generally fine, with light winds from N.W. to S.W. Gloomy at Bluff. Rainfall at Wellington, 0·45. Barometers: Russell, 29·9; Wellington, 29·6; and Bluff, 29·5.

New South Wales.—In southern parts fine and frosty, with fog in places. In north cloudy and unsettled, with rain and showers along the coast. During the last 48 hours rain has fallen at 20 stations in N.E. parts on both sides of the range; heaviest on the Clarence and Richmond Rivers, where from one to two inches fell. The barometers generally have risen, and temperature fallen, sea moderate and smooth. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·52; Bourke, 30·17; Clarence and Newcastle, 56°, and Goulburn, 31° Extra stations:—Lawrence, gentle steady rain of 90 points during last three days; Bundarra, max. 55°, min. 49°, rainfall 0·32, and fine; Morangarell, max. 58°, min. 38°, fine and frosty; Warrah, max. 70°, fine For further particulars see map.

Queensland.—Generally fine, with light winds from S.E. and S.W., and moderate sea. Rough sea off Cape Moreton and Cooktown; strong squally S.E. wind at the latter. Rainfall: Cape Moreton, 1·27; Brisbane, 0·15; Rockhampton, 0·29; Townsville, 0·32; Cooktown, 0·11. Extremes of barometers and temperature: Brisbane, 30·19 and 62°; Townsville, 29·78, and Cooktown, 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.S.E., 8, fine, but cloudy, smooth sea, temperature 56°; Cape Otway, W.S.W., 8, misty, rain, and foggy, rough sea, temperature 53°; Melbourne, calm, cloudy and gloomy, temperature 51°; Cape Schanck, W., 13, misty, rain, and foggy, smooth sea, temperature 57°; Wilson's Promontory, W., 23, squally and foggy, moderate sea, temperature 52.; Lakes Entrance, W., 13, fine, moderate sea, temperature 54°.

New South Wales.—Menindie, S., 14, fine, temperature 55°; Wentworth, S., 14, dull, temperature 52°; Deniliquin, S., 14, fine, temperature 62°; Balranald, S., 14, fine; Eden, N.E., 14, fine, smooth sea, temperature 56°; Moruya, E.N.E., 14, fine, smooth sea, temperature 59°; Cape St. George, S., 14, fine, smooth sea, temperature 59°; Sydney, S.S.E., 7, overcast and gloomy, smooth sea, temperature 58°; Newcastle, S.W., 14, fine, smooth sea, temperature 65°; Port Macquarie, S.S.W., 14, raining, smooth sea, temperature 62°; Clarence River, S., 28, showery, moderate sea, temperature 64°; Dubbo, N.E., 14, fine, temperature 61°; Goulburn, calm, fine, temperature 54°.

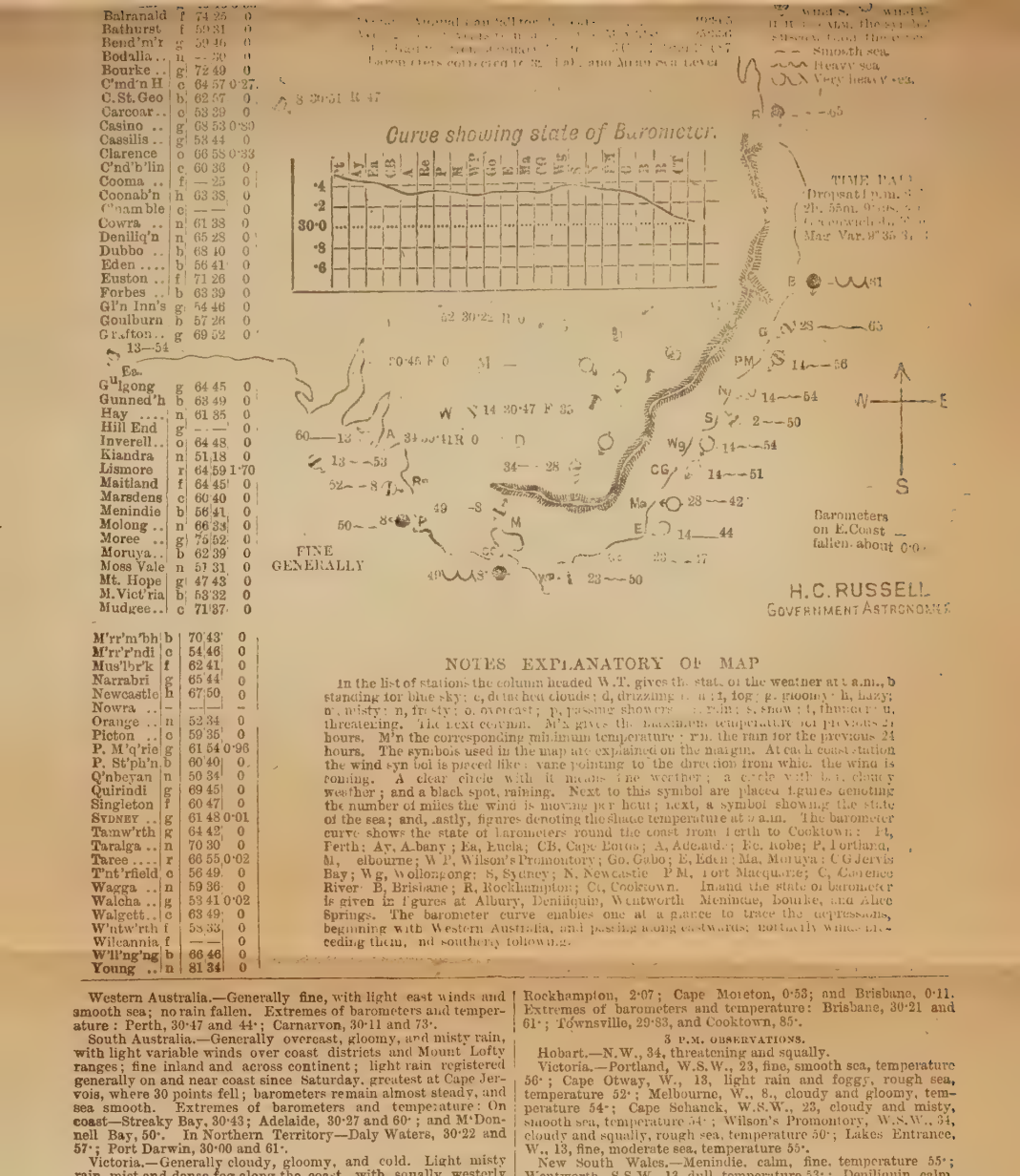
STATE OF RIVERS.

Gundagai, below summer level; Barwon, 33 feet 4 inches; Namoi, low; Mogil, 17 feet; Mungindi, 17 feet; Brewarrina, 26 feet; Goodoga, 6 feet 10 inches; Louth, 19 feet 6 inches; Tilpa, 21 feet. Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, below summer level; at Balranald, 8 inches above summer level. Murray: At Albury, 1 foot 1 inch above summer level: at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 5 inches above summer level; at Menindie, low; at Wilcannia, 15 feet 7 inches and rising; at Bourke, 24 feet and rising.

ASTRONOMICAL MEMORANDA FOR JUNE 22.

Sun rises at 7.6, sets at 4.57; Moon, 10.23 p.m., 10.31 a.m.; Mercury, 7.58 a.m., 5.37 p.m.; Venus, 3.57 a.m., 2.34 p.m.; Mars, 11.45 a.m., 11.38 p.m.; Jupiter, 11.55 a.m., 11.47 p.m.; Saturn, 7.52 a.m., 5.46 p.m. New Moon, 3rd, Full Moon 16th.

High water at Fort Denison, June 22: 11·43 a.m.



Balranald	f	74	25	0
Bathurst	f	59	31	0
Bend'm'r	g	59	46	0
Bodalla ..	n	—	50	0
Bourke ..	g	72	49	0
C'md'n H	c	64	57	0·27
C. St. Geo	b	62	57	0
Carcoar ..	c	53	39	0
Casino ..	g	68	53	0·80
Cassilis ..	g	53	44	0
Clarence	o	66	58	0·33
C'nd'b'lin	c	60	36	0
Cooma ..	f	—	25	0
Coonab'n	h	63	38	0
C'oamble	c	—	—	0
Cowra ..	n	61	38	0
Deniliq'n	n	65	28	0
Dubbo ..	b	68	40	0
Eden	b	56	41	0
Euston ..	f	71	26	0
Forbes ..	b	63	39	0
Gl'n Inn's	g	54	46	0
Goulburn	b	57	26	0
Grafton ..	g	69	52	0
Ga.				
Gulgong	g	64	45	0
Gunned'h	b	63	49	0
Hay	n	61	35	0
Hill End	g	—	—	0
Inverell ..	o	64	48	0
Kiandra	n	51	18	0
Lismore	r	64	59	1·70
Maitland	f	64	45	0
Marsdens	c	60	40	0
Menindie	b	56	41	0
Molong ..	n	66	33	0
Moree ..	g	75	52	0
Moruya ..	b	62	39	0
Moss Vale	n	57	31	0
Mt. Hope	g	47	43	0
M. Vict'ria	b	53	32	0
Mudgee ..	c	71	37	0
M'rr'm'bh	b	70	43	0
M'rr'ndi	c	54	46	0
Mus'br'k	f	62	41	0
Narrabri	g	65	44	0
Newcastle	h	67	50	0
Nowra ..	—	—	—	—
Orange ..	n	53	34	0
Picton ..	c	59	35	0
P. M'q'rie	g	61	54	0·96
P. St'ph'n	b	60	40	0
Q'nbeyan	n	50	34	0
Quirindi	g	69	45	0
Singleton	f	60	47	0
SYDNEY ..	g	61	48	0·01
Tamw'rth	g	64	42	0
Taralga ..	n	70	30	0
Taree	r	66	55	0·02
T'nt'rfield	c	56	49	0
Wagga ..	n	59	36	0
Walcha ..	g	53	41	0·02
Walgett ..	c	63	49	0
W'ntw'rth	f	53	33	0
Wilcannia	f	—	—	0
W'll'ng'ng	b	66	46	0
Young ..	n	81	34	0

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, foggy; g, gloomy; h, hazy; o, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x, gives the maximum temperature of previous 24 hours. M'n the corresponding minimum temperature; r.m. the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from whic. the wind is coming. A clear circle with it means fine weather; a circle with lines, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Pc, Robe; P, Portland, M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle P M, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light east winds and smooth sea; no rain fallen. Extremes of barometers and temperature: Perth, 30·47 and 44°; Carnarvon, 30·11 and 73°.

South Australia.—Generally overcast, gloomy, and misty rain, with light variable winds over coast districts and Mount Lofty ranges; fine inland and across continent; light rain registered generally on and near coast since Saturday, greatest at Cape Jervois, where 30 points fell; barometers remain almost steady, and sea smooth. Extremes of barometers and temperature: On coast—Streaky Bay, 30·43; Adelaide, 30·27 and 60°; and M'Donnell Bay, 50°. In Northern Territory—Daly Waters, 30·22 and 57°; Port Darwin, 30·00 and 61°.

Victoria.—Generally cloudy, gloomy, and cold. Light misty rain, mist and dense fog along the coast, with squally westerly winds, and moderate sea. Rough sea off Cape Otway. Rainfall generally from two to six points. Heavy fogs and frost inland. Extremes of barometers and temperature:—Horsham, 30·41 and 52°; Wilson's Promontory, 30·24; and Omeo, 34°.

Tasmania.—Generally fine, but cloudy, with light fresh westerly winds, and smooth sea. Rough sea at Southport. No rain fallen. Extremes of barometers and temperature:—Circular Heads, 30·25; Southport, 30·03 and 53°; and Falmouth, 41°.

New Zealand.—On North Island fine, with westerly winds. At Bluff, showery, and strong S.W. wind. On West Coast, S.W. wind, and rough sea. Barometers: Russell, 30·0; Wellington, 29·6; and Bluff, 29·5.

New South Wales.—In south parts fine and frosty; in north cloudy and unsettled, with light rain at two stations on the coast. During the last 27 hours moderate rain has fallen in the north coast districts. The heaviest falls occurred on the Clarence and Richmond rivers, where from one to two inches fell. At Lismore, where it was still raining at 9 a.m., the river is rising. Clarence River bar has 12 feet of water at high tide. Dense fog prevails along the Victorian border and Hunter River. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·47; Bourke, 30·22; Clarence, 65°; and Cooma, 27°. Extra stations: Bundarra, max. 62°, min. 51°, cloudy and cold; Morangarell, max. 61°, min. 35°, dull and frosty. For further particulars see map.

Queensland.—Showery, and heavy rain along the entire coast from Brisbane to Cooktown, with S. to E. winds, and moderate sea. Rough sea off Cape Moreton. Rainfall: Townsville, 1·34; Rockhampton, 2·07; Cape Moreton, 0·53; and Brisbane, 0·11. Extremes of barometers and temperature: Brisbane, 30·21 and 61°; Townsville, 29·83, and Cooktown, 85°.

3 P.M. OBSERVATIONS.

Hobart.—N.W., 34, threatening and squally.

Victoria.—Portland, W.S.W., 23, fine, smooth sea, temperature 56°; Cape Otway, W., 13, light rain and foggy, rough sea, temperature 52°; Melbourne, W., 8., cloudy and gloomy, temperature 54°; Cape Schanck, W.S.W., 23, cloudy and misty, smooth sea, temperature 54°; Wilson's Promontory, W.S.W., 34, cloudy and squally, rough sea, temperature 50°; Lakes Entrance, W., 13, fine, moderate sea, temperature 55°.

New South Wales.—Menindie, calm, fine, temperature 55°; Wentworth, S.S.W., 13, dull, temperature 53°; Deniliquin, calm, fine and clear, temperature 69°; Eden, S.E., 14, fine, smooth sea, temperature 56°; Moruya, S.S.E., 14, fine, smooth sea, temperature 57°; Cape St. George, N., 14, fine, smooth sea, temperature 61°; Sydney, N., 6, cloudy and dull, smooth sea, temperature 60°; Newcastle, E., 14, cloudy, smooth sea, temperature 61°; Port Macquarie, S.S.W., 14, dull and unsettled, smooth sea, temperature 63°; Clarence River, S.W., 14, showery, moderate sea, temperature 61°; Walgett, L., dull, raining lightly in showers, temperature 59°; Dubbo, calm, fine, temperature 58°; Goulburn, calm, fine, temperature 55°.

STATE OF RIVERS.

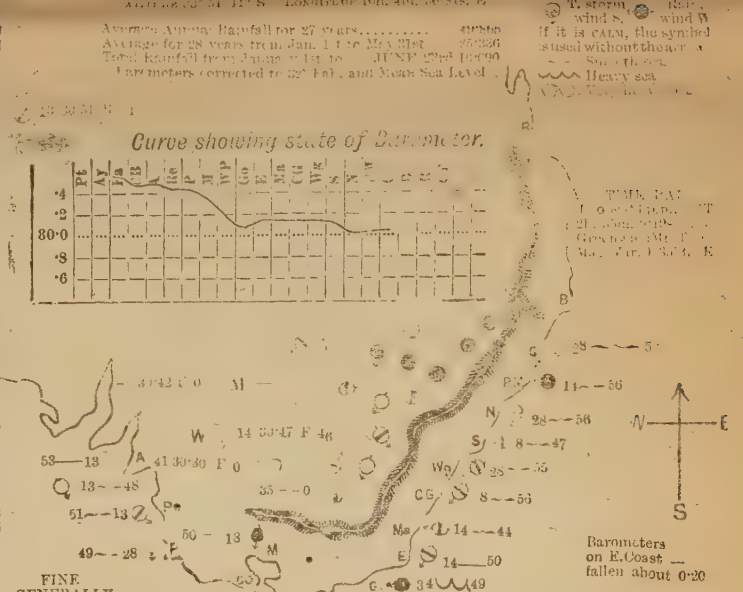
Barwon, 32 feet 8 inches; Brewarrina, 28 feet; Goodoga, 6 feet 4 inches; Gundagai, below summer level; Louth, 19 feet 9 inches; Mogil Mogil, 18 feet; Mungindi, 18 feet 6 inches; Namoi, low; Tilpa, 22 feet. Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, below summer level; at Balranald, 8 inches above summer level. Murray: At Albury, 1 foot 6 inches above summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 5 inches above summer level; at Pooncarie, summer level; at Menindie, low but rising; at Wilcannia, 17 feet and rising; at Bourke, 24 feet 9 inches and rising.

ASTRONOMICAL MEMORANDA FOR JUNE 23.

Sun rises at 7.7, sets at 4.57; Moon, 11.16 p.m., 11.3 a.m.; Mercury, 8.2 a.m., 5.42 p.m.; Venus, 3.59 a.m., 2.34 p.m.; Mars, 11.43 a.m., 11.36 p.m.; Jupiter, 11.51 a.m., 11.44 p.m.; Saturn, 7.48 a.m., 5.42 p.m. New Moon, 3rd. Full Moon 16th.

High water at Fort Denison, June 23: 12.2 a.m.; 12.20 p.m.

Armidale	r	53	46	0·59
Balranald	b	72	30	0
Bathurst	f	55	33	0
Bend'n'r	r	58	50	0·52
Bodalla ..	b	—	32	0
Bourke ..	c	72	52	0·09
C'mdn H	r	66	57	0·21
C. St. Geo	c	64	62	0
Carcoar ..	g	52	36	0
Casino ..	r	64	55	1·01
Cassilis ..	g	54	49	0
Clarence	r	66	60	1·88
C'nd'b'lin	c	60	41	0
Cooma ..	n	56	32	0
Coonab'n	h	59	48	0
C'nam ble	c	—	—	0
Cowra ..	n	58	37	0
Deniliq'n	b	63	31	0
Dubbo ..	b	61	41	0
Eden ..	g	58	45	0
Euston ..	b	66	31	0
Forbes ..	b	61	38	0
Gl'n Inn's	r	48	46	0·54
Goulburn	f	60	27	0
Gr.fton ..	c	61	55	0·35
Gulgong	f	64	46	0
Gunned'h	r	61	52	0
Hay	b	62	36	0
Hill End	g	—	—	0
Inverell ..	r	58	51	0·86
Kiandra	n	51	15	0
Lismore	r	64	60	0·90
Maitland	c	61	45	0
Marsdens	f	59	40	0
Menindie	b	67	42	0
Molong ..	n	66	33	0
Moree ..	r	74	50	1·00
Moruya ..	b	60	41	0
Moss Vale	g	51	37	0
Mt. Hope	b	47	43	0
M.Vict'ria	c	38	33	0
Mudgee ..	g	65	37	0
M'rr'm'bh	b	57	40	0
M'rr'r'ndi	c	54	47	0
Mus'br'k	g	64	48	0
Narrabri	r	65	45	0·20
Newcastle	g	64	53	0
Nowra ..	—	—	—	—
Orange ..	b	52	30	0
Picton ..	n	60	34	0
P. M'q'rie	r	63	55	0·15
P. St'ph'n	c	63	40	0
Q'nbeyan	n	49	30	0
Quirindi	g	59	47	0
Singleton	g	53	44	0
SYDNEY ..	g	61	47	0
Tamw'rth	r	61	44	0·13
Taralga ..	b	69	30	0
Taree	r	64	56	0·07
T'nt'rfield	r	54	49	0·96
Wagga ..	f	56	36	0
Walcha ..	r	53	42	0·46
Walgett ..	r	61	51	0·30
W'ntw'rth	b	57	34	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	66	46	0
Young ..	f	78	30	0



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky, c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy, m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Max., gives the maximum temperature for previous 24 hours. Min. the corresponding minimum temperature; and, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ke, Kobe; P, Portland, M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong, S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light east winds and moderate sea. Extremes of barometers and temperature: Esperance Bay, 30·39 and 70°; Carnarvon, 30·09 and 73°.

South Australia.—Generally fine; cloudy and misty in places over the south and coast districts of the colony. Inland fine, clear, and frosty. Winds, generally light from E. and S.E.; barometers steady, and sea smooth. Rain recorded over coast district and at Mounty Lofty range, from one to three points. Extremes of barometers and temperature: On coast—Eucla, 30·48 and 56°; M'Donnell Bay, 30·42 and 45°. In Northern Territory—Daly Waters, 30·22 and 60°; Port Darwin, 30·00 and 71°.

Victoria.—Generally cloudy, threatening, and raining, with strong and squally west and south winds, and rough sea. Rainfall: Generally from 3 to 15 points; showery at Omeo. Extremes of barometers and temperature:—Portland, 30·41; Omeo, 30·23; Horsham, 54°; and Omeo, 40°.

Tasmania.—Generally cloudy and showery, with fresh westerly winds and moderate sea. Showery at Circular Heads and Hobart. At the latter place strong, squally, west wind, and snow on mountain, and 3 points rain. Extremes of barometers and temperature: Circular Heads, 30·21 and 42°; Falmouth, 30·06 and 46°.

New Zealand.—Generally fine on North Island, with light westerly winds. Cloudy at Bluff, with strong N.W. wind. On West Coast, strong S.W. wind and showery. Barometers: Russell, 30·2; Wellington, 29·7; and Bluff, 29·3.

New South Wales.—In N.E. parts (from the sea to Walgett in west, and Namoi and Manning River in south) raining steadily at 20 stations. During the night eight of these, situated in the extreme north on both sides of the range, recorded each little more or less than an inch rain; one, Clarence, nearly 2 inches; while a dozen others had lesser quantities. In south parts, generally fine, with much fog and frost near western slopes of mountains. For the rest of the colony, cloudy, gloomy, and threatening, with west and southerly winds. Barometers have fallen generally. The Darling has risen at Menindie. Sea smooth. Gabo Island reports passing showers, 19 points rain, strong and squally west wind, and rather rough sea. Extra stations: Lawrence, 1 inch and 7 points rain, and still raining; Bundarra, max. 58°, min. 51°, 65 points rain, and raining steadily; Morangarell, max. 59°, min. 32°, frosty and foggy. For further particulars see map.

Queensland.—Brisbane, S., showery, rain 1·32, temperature 60°; Cape Moreton, wind N.W., rough sea, rainfall 1·15, temperature 64°; Rockhampton, W., fine, temperature 63°, rain 1·83; Townsville, calm, fine, moderate sea, rain 0·40, temperature 68° Cooktown, calm, rain 0·07, threatening, moderate sea.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.S.W., 28, fine but cloudy, smooth sea, temperature 49°; Cape Otway, S.S.W., 12, showery and misty, rough sea, temperature 49°; Melbourne, S.S.W., 18, fine but cloudy, temperature 52°; Southport, S., 34, hailstorm, rough sea, temperature 41°; Cape Schanck, S., 23, misty and squally, rough sea, temperature 54°; Wilson's Promontory, S.W., 34, cloudy and squally, rough sea, temperature 49°; Lakes Entrance, W.S.W., 28, squally, rough sea, temperature 50°.

New South Wales.—Menindie, S.E., 28, cloudy and cool, temperature 65°; Wentworth, S., 14, fine, temperature 52°; Deniliquin, S.W., 28, cloudy and cold, temperature 57°; Eden, S.W., 28, showery, smooth sea, temperature 53°; Moruya, S.S.W., 28, fine, smooth sea, temperature 58°; Cape St. George, S., 42, fine, moderate sea, temperature 57°; Sydney, S., 20, overcast and squally, smooth sea, temperature 58°; Newcastle, S.E., 28, raining, smooth sea, temperature 56°; Port Macquarie, S.W., 28, dull, moderate sea, temperature 61°; Clarence River, S.W., 14, raining, moderate sea, temperature 63°; Walgett, S., dull and cloudy, temperature 56°; Dubbo, calm, fine, barometer falling rapidly, temperature 64°; Goulburn, calm, fine, temperature 54°.

STATE OF RIVERS.

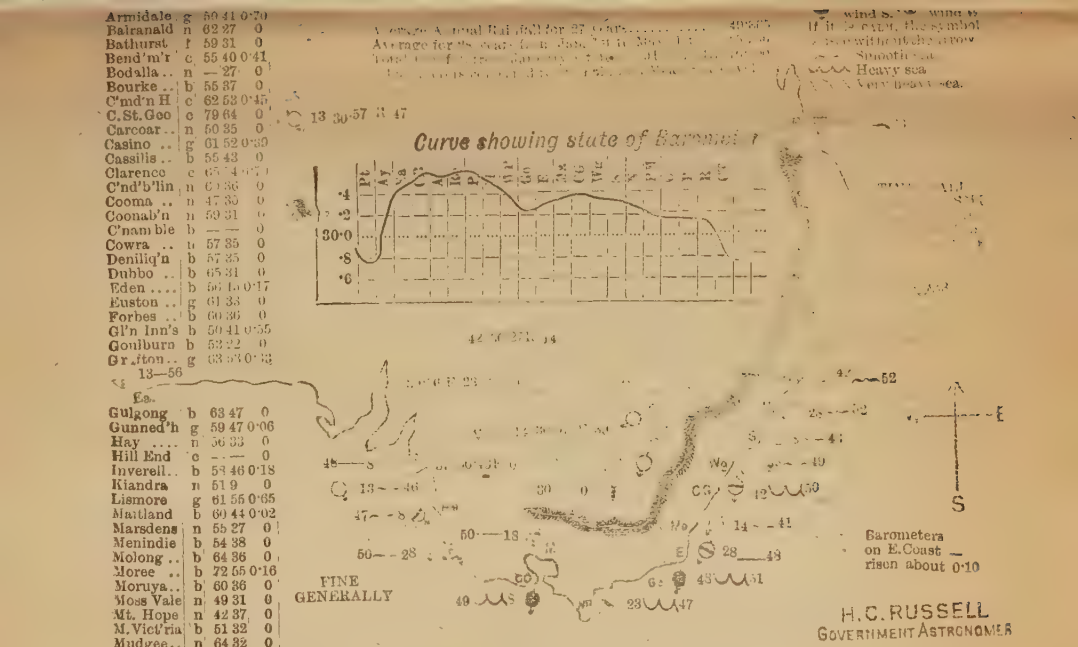
Barwon, 31 feet; Brewarrina, 27 feet 6 inches; Goodoga, 6 feet 4 inches; Gundagai, below summer level; Louth, 19 feet 11 inches; Mogil Mogil, 20 feet; Mungindi, 20 feet; Namoi, low; Tilpa, 22 feet 9 inches. Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, below summer level; at Balranald, 8 inches above summer level. Murray: At Albury, 1 foot 4 inches above summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 5 inches above summer level; at Pooncarie, below summer level; at Menindie, 2 feet above summer level, rising; at Wilcannia, 18 feet 3 inches above summer level, and rising; at Bourke, 25 feet 5 inches above summer level, and rising.

ASTRONOMICAL MEMORANDA FOR JUNE 24.

Sun rises at 7.7, sets at 4.57; Moon, —, 11.32 a.m.; Mercury, 8.6 a.m., 5.47 p.m.; Venus, 4.0 a.m., 2.34 p.m.; Mars, 11.40 a.m., 11.34 p.m.; Jupiter, 11.47 a.m., 11.40 p.m.; Saturn, 7.45 a.m., 5.39 p.m. New Moon, 3rd; Full Moon, 16th.

High water at Fort Denison, June 24: 12.40 a.m., 12.59 p.m.

Armidale	g	59 41	0·70	
Balranald	n	62 27	0	
Bathurst	f	59 31	0	
Bend'm'r	c	55 40	0·41	
Bodalla ..	n	— 27	0	
Bourke ..	b	55 37	0	
C'md'n H	c	62 53	0·45	
C.St.Geo	c	79 64	0	
Carcoar ..	n	50 35	0	
Casino ..	g	61 52	0·30	
Cassilis ..	b	55 43	0	
Clarence	c	65 [illegible]	[illegible]	
C'nd'b'lin	n	61 36	0	
Cooma ..	n	47 35	0	
Coonab'n	n	59 31	0	
C'namble	b	— —	0	
Cowra ..	n	57 35	0	
Deniliq'n	b	57 35	0	
Dubbo ..	b	65 31	0	
Eden	b	56 [illegible]	0·17	
Euston ..	g	61 33	0	
Forbes ..	b	60 36	0	
Gl'n Inn's	b	50 41	0·55	
Goulburn	b	52 22	0	
Gr.fton ..	g	63 [illegible]	[illegible]	
Gulgong	b	63 47	0	
Gunned'h	g	59 47	0·06	
Hay	n	56 33	0	
Hill End	c	— —	0	
Inverell ..	b	58 46	0·18	
Kiandra	n	51 9	0	
Lismore	g	61 55	0·65	
Maitland	b	60 44	0·02	
Marsdens	n	55 27	0	
Menindie	b	54 38	0	
Molong ..	b	64 36	0	
Moree ..	b	72 55	0·16	
Moruya ..	b	60 36	0	
Moss Vale	n	49 31	0	
Mt. Hope	n	42 37	0	
M.Vict'ria	b	51 32	0	
Mudgee ..	n	64 32	0	
M'rr'm'bhl	b	60 29	0	
M'rr'ndi	b	55 43	0	
Mus'br'k	b	65 43	0	
Narrabri	b	60 40	0·15	
Newcastle	—	61 45	0	
Nowra ..	n	— —	—	
Orange ..	n	52 30	0	
Picton ..	c	57 34	0	
P. M'q'rie	b	59 51	0·68	
P. St'ph'n	n	51 36	0	
Q'nbeyan	n	51 31	0	
Quirindi	b	63 47	0	
Singleton	b	50 44	0	
SYDNEY ..	b	58 42	0	
Tamw'rth	b	56 41	0·12	
Taralga ..	n	63 26	0	
Taree	g	59 51	0·27	
T'nt'rfield	g	56 45	0·52	
Wagga ..	n	53 34	0	
Walcha ..	g	50 31	0·52	
Walgett ..	b	57 41	0·03	
W'ntw'rth	b	66 54	0	
Wilcannia	b	— —	0	
W'll'ng'ng	b	63 46	0	
Young ..	n	75 29	0	



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.; b, blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy, threatening, or blue sky; l, lightning; m, misty; n, rain; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for the day for the previous 24 hours. M'n the corresponding minimum temperature for the night for the previous 24 hours. The symbols used in the map are explained from which the wind is the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland, Melbourne; W.P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C.G.Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P.M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. In and the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and gloomy, with fresh easterly winds. Squally on South and S.E. Coasts, with rough sea on the latter and moderate in the former. Heavy rain at Carnarvon and 45 points rain; 25 points at Perth. Extremes of barometers and temperature: Esperance Bay, 30·17; Albany, 29·78; Carnarvon, 75°, and Perth, 52°. Barometric depression south of Albany.

South Australia.—Generally fine, with scattered clouds; mist and light rain on south coast; light East and S.E. winds and smooth sea. Showery at Macdonnell Bay. Rainfall along the coast, one and two points. Extremes of barometers and temperature: On coast—Adelaide, 30·60; Eucla, 30·46 and 51°, and Cape Borda, 46°. In Northern Territory—Daly Waters, 30·23 and 60°; Port Darwin, 30·00 and 70°.

Victoria.—Generally cloudy, gloomy, and raining, with fresh squally southerly winds, and rough sea. Showery on S.E. Coast; showery at Omeo. Rainfall: General, but very light. Extremes of barometers and temperature:—Portland, 30·54; Omeo, 30·37 and 40°, and Horsham, 54°.

Tasmania.—On North Coast fine; on E. Coast, cloudy with fresh southerly winds and moderate sea. Rough sea at Southport. Extremes of barometers and temperature: Southport, 30·47 and 44°; Hobart, 30·38 and 42°.

New Zealand.—On North Island showery, with north wind and calm. At Bluff showery. Barometers: Russell, 29·6; Wellington, 29·4; and Bluff, 29·4.

New South Wales.—Generally fine and cold, with heavy frosts in south parts, fresh southerly winds, risen barometers, and moderate sea. Rough sea off Gabo Island and Cape St. George; at the former place it was showery, with very strong S.S.W. wind, rough sea, and 17 points rain. In north coast districts, cloudy and gloomy, and eight stations along the mountains and coast report above half-inch rain; a dozen others, principally on western slope of mountains, had lesser quantities. Extremes of barometers and temperature at 9 a.m.:—Wentworth, 30·57; Clarence, 30·14; Lismore, 56°; and Cooma, 27°. Extra stations: Bundarra, max. 51°, min. 46°, rainfall 0·57, and fine; Morangarell, max. 56°, min. 29°, severe frost; Warrah, max. 65°, min. 42°, fine. For further particulars see map.

Queensland.—Generally cloudy, with south and west winds, and moderate sea. Rough sea at Cape Moreton. Rainfall: Cape Moreton, 0·25, and Brisbane, 0·17. Extremes of barometers and temperature: Brisbane, 30·11 and 58°; and Cooktown, 29·77 and 82°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.S.E., 23, cloudy, and smooth sea, temperature 52°; Cape Otway, S., foggy, and misty, and rough sea, temperature 51°; Melbourne, S.S.W., 13, cloudy, and gloomy, temperature 50°; Cape Schanck, S.S.E., 18, cloudy and misty, rough sea, temperature 52°; Wilson's Promontory, S.S.E., 18, fine but cloudy, moderate sea, temperature 50°; Lakes Entrance, W., 18, showery, rough sea, temperature 50°.

New South Wales.—Menindie, S., fine, temperature 53°; Wentworth, S., fine and clear, temperature 52°; Deniliquin, calm, fine and clear, temperature 52°; Eden, S.W., 42, fine, smooth sea, temperature 54°; Moruya, S., 28, fine, rough sea, temperature 53°; Cape St. George, S., 42, fine, smooth sea, temperature 54°; Sydney, S.S.W., 22, fine but cloudy, smooth sea, temperature 58°; Port Macquarie, S.S.W., 42, cloudy moderate sea, temperature 59°; Clarence River, S., 28, cloudy, moderate sea, temperature 61°; Dubbo, S., fine, temperature 57°; Goulburn, calm, fine, temperature 51°.

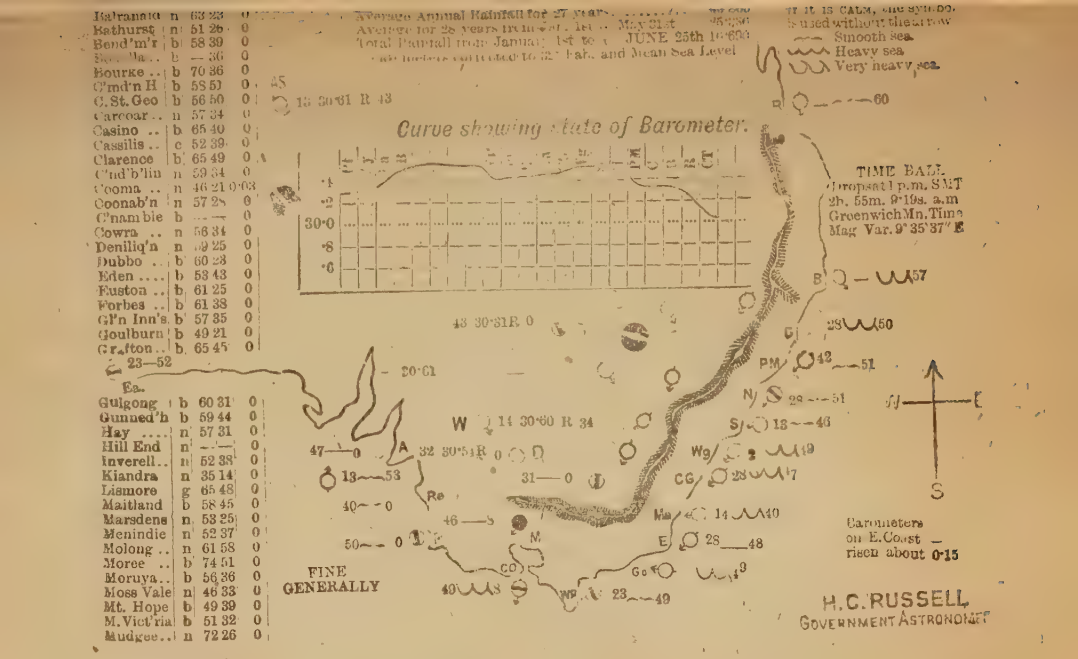
STATE OF RIVERS.

Barwon, 29 feet; Brewarrina, 28 feet; Goodoga, 6 feet; Gundagai, 20 feet 6 inches; Mogil, 22 feet; Mungindi, 21 feet; Namoi, low; Tilpa, 23 feet 3 inches. Murrumbidgee: At Wagga, 1 foot 3 inches above summer level; at Hay, below summer level; at Balranald, 7 inches above summer level; at Euston, 1 foot 8 inches above summer level. Darling: At Wentworth, 5 inches above summer level; at Pooncarie, below summer level; at Menindie, 9 feet above summer level; at Wilcannia, 19 feet 3 inches above summer level; at Bourke, 26 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JUNE 25.

Sun rises at 7.7, sets at 4.58; Moon rises at 12.11 a.m., sets 12.9 p.m. Mercury, 8.10 a.m., 5.52 p.m.; Venus, 4.2 a.m., 2.33 p.m.; Mars, 11.38 a.m., 11.33 p.m.; Jupiter, 11.43 a.m., 11.37 p.m.; Saturn, 7.41 a.m., 5.35 p.m. New Moon, 3rd; Full Moon, 16th.

High water at Fort Denison, June 25: 1.23 a.m., 1.47 p.m.



Balranald	n	63 23	0	
Bathurst	n	51 26	0	
Bend'm'r	b	58 39	0	
[illegible]	b	— 36	0	
Bourke ..	b	70 36	0	
C'md'n H	b	58 53	0	
C. St. Geo	b	56 50	0	
Carcoar ..	n	57 34	0	
Casino ..	b	65 40	0	
Cassilis ..	c	52 39	0	
Clarence	b	65 49	0	
C'nd'b'lin	n	59 34	0	
Cooma ..	n	46 21	0·03	
Coonab'n	n	57 28	0	
C'nambie	b	— —	0	
Cowra ..	n	56 34	0	
Deniliq'n	n	49 25	0	
Dubbo ..	b	60 28	0	
Eden	b	58 43	0	
Euston ..	b	61 25	0	
Forbes ..	b	61 38	0	
Gl'n Inn's	b	57 35	0	
Goulburn	b	49 21	0	
Grafton ..	b	65 45	0	
Ga.				
Gulgong	b	60 31	0	
Gunned'h	b	59 44	0	
Hay	n	57 31	0	
Hill End	n	— —	0	
Inverell ..	n	52 38	0	
Kiandra	n	35 14	0	
Lismore	g	65 48	0	
Maitland	b	58 45	0	
Marsdens	n	53 25	0	
Menindie	n	52 37	0	
Molong ..	n	61 58	0	
Moree ..	b	74 51	0	
Moruya ..	b	56 36	0	
Moss Vale	n	46 33	0	
Mt. Hope	b	49 39	0	
M. Victoria	b	51 32	0	
Mudgee ..	n	72 26	0	
M'r'm'bh	b	60 29	0	
M'r'r'ndi	c	52 42	0	
Mus'br'k	b	61 41	0	
Narrabri	b	58 36	0	
Newcastle	c	60 47	0·02	
Nowra ..		— —	—	
Orange ..	n	46 27	0	
Picton ..	b	54 38	0	
P. M'q'rie	b	59 44	0	
P. St'ph'n	c	47 31	1·75	
Q'nbeyan	n	47 29	0	
Quirindi	b	63 46	0	
Singleton	b	60 46	0	
SYDNEY ..	b	55 45	0	
Tamw'rth	b	55 41	0	
Taralga ..	n	60 27	0	
Taree	b	62 49	0·02	
T'nt'rfield	n	58 32	0	
Wagga ..	n	53 33	0	
Walcha ..	b	50 35	0	
Walgett ..	b	57 39	0	
W'ntw'rth	n	57 32	0	
Wilcannia	b	— —	0	
W'll'ng'ng	b	57 49	0	
Young ..	n	72 28	0	

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.I. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; l, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x, gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature. Rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the west coast cloudy, gloomy, and threatening, with light variable winds and moderate sea. Raining at Carnarvon and Perth. On south coast, at Esperance Bay, fine, with west wind and smooth sea. Extremes of barometers and temperature: Perth, 30·26; Cossack, 30·02; Carnarvon, 75°; and Esperance Bay, 44°

South Australia.—Generally fine and cold. On coast light E. and N.E. winds, and moderate sea. Inland and northern territory S.E. winds and calm, and very cold. Heavy dew and hoar frost at Adelaide. Extremes of barometers and temperature: On coast—Robe, 30·59°; Eucla, 30·36; and Cape Borda, 53°. In Northern Territory—Daly Waters, 30·25 and 58°; Port Darwin, 30·02 and 70°.

Victoria.—Generally cloudy, gloomy, and misty, with light southerly winds, and rough sea. Foggy, and passing showers of misty rain at Melbourne, nine points fallen. Frosty inland. Extremes of barometers and temperature:—Melbourne, 30·59; Wilson's Promontory, 30·43; Cape Schanck, 52°; and Omeo, 32°.

Tasmania.—In north, cloudy and foggy, with south wind and calm. In south, fine with westerly winds, sea moderate; heavy dew and 6 points rain at Southport. Extremes of barometers and temperature at 9 a.m.: Low Heads, 30·43 and 11°; Falmouth, 30·35; and Hobart, 46°.

New Zealand.—Heavy rain in north, snowing in south, winds generally from west, rather stormy at Wellington; barometers very low. Barometers: Russell, 29·6; Wellington, 29·2; Bluff, 29·3.

New South Wales.—Generally fine and cold, with light southerly winds, high barometers, and rough sea. Heavy frost in south parts and along the range. Few drops of rain fallen at a few scattered stations, but heavy at Port Stephens. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·61; Bourke, 30·31; Clarence, 51°; and Cooma, 25°. Extra stations: Bundarra, max. 63°, min. 74°, fine and clear; Morangarell, max. 54°, min. 28°, fine; Warrah, max. 54°, min. 28°, frosty. For further particulars see map.

Queensland.—Generally fine, with southerly winds and rough sea. Rainfall: Brisbane, 0·01; Cape Moreton, 0·26; and Rockhampton, 0·09. Extremes of barometers and temperature: Brisbane, 30·28 and 57°; Townsville, 29·90; and Cooktown, 70°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E., 14, fine but cloudy, sea smooth, temperature 43°; Cape Otway, W., 14, misty, smooth, temperature 51°; Melbourne, calm, cloudy, and gloomy, temperature 50°; Cape Schanck, S.S.E., 8, cloudy and misty, moderate sea, temperature 52°; Wilson's Promontory, W.S.W., 23, cloudy and misty, moderate sea, temperature 50°; Lakes Entrance, W., 18, fine but cloudy, rough sea, temperature 50°.

New South Wales.—Menindie, calm, fine and clear, temperature 52°; Wentworth, N., 14, fine and clear, temperature 50°; Deniliquin, calm, fine and cold, temperature 57°; Eden, S.W., 23, fine, smooth sea, temperature 55°; Moruya, N.E., 14, fine, moderate sea, temperature 57°; Cape St. George, S.W., 14, fine, heavy sea, temperature 57°; Sydney, S.S.E., 8, fine but hazy, smooth sea, temperature 55°; Newcastle, S.S.W., 14, fine, moderate sea, temperature 59°; Port Macquarie, S.S.W., 42, fine, heavy sea, temperature 62°; Clarence River, S.S.W., 28, fine, moderately heavy sea; Dubbo, N.E., fine, temperature 52°; Goulburn, calm, fine, temperature 51°.

STATE OF RIVERS.

Barwon, 27 feet 2 inches; Brewarrina, 29 feet; Goodoga, 5 feet 6 inches; Gundagai, below summer level; Louth, 21 feet 1 inch; Mogil, a banker and rising; Mungindi, 23 feet; Namoi, low; Tilpa, 23 feet. Murrumbidgee: At Wagga, 1 foot 3 inches; at Hay, below summer level; at Balranald, 7 inches above summer level. Murray: At Albury, 1 foot above summer level. At Euston, 1 foot 5 inches above summer level; at Pooncarie, below summer level; at Menindie, 12 feet 8 inches above summer level; at Wilcannia, 22 feet above summer level; at Bourke, 26 feet 9 inches above summer level.

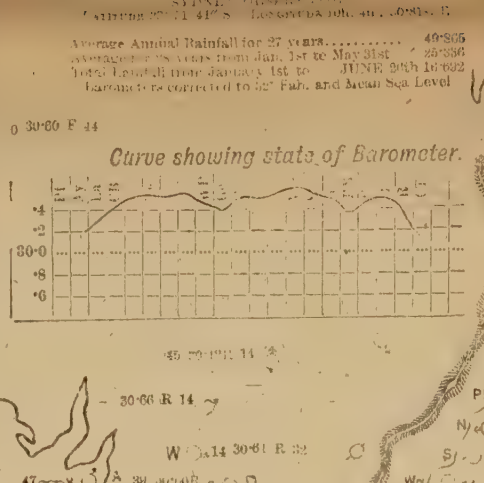
ASTRONOMICAL MEMORANDA FOR JUNE 26.

Sun rises at 7.7, sets at 4.58; Moon rises at 1.6 a.m., sets 12.42 p.m. Mercury, 8.14 a.m., 5.57 p.m.; Venus, 4.3 a.m., 2.33 p.m.; Mars, 11.35 a.m., 11.31 p.m.; Jupiter, 11.39 a.m., 11.2 p.m.; Saturn, 7.38 a.m., 5.32 p.m. New Moon, 3rd; Full Moon, 16th.

High water at Fort Denison, June 26: 2.6 a.m., 2.45 p.m.

Albury	n	54 29	0
Armidale	n	43 32	0
Balranald	n	74 20	0
Bathurst	n	56 25	0
Bend'm'r	n	55 29	0
Bodalla ..	n	— —	0
Bourke ..	b	73 36	0
C'md'n H	b	62 56	0
C. St. Geo	b	60 56	0
Carcoar ..	n	45 31	0
Casino ..	b	67 42	0
Cassilis .	n	52 34	0
Clarence	b	64 50	0
C'md'b'lin	n	55 33	0
Cooma ..	n	59 12	0
Coonab'n	n	59 26	0
C'nam ble	n	— —	0
Cowra ..	b	63 31	0
Deniliq'n	n	60 22	0
Dubbo .	b	59 27	0
Eden	b	54 44	0
Euston ..	n	70 19	0
Forbes ..	b	62 39	0
Gl'n Inn's	n	61 31	0
Goulburn	b	54 23	0
Grafton ...	b	64 41	0
Ga.		28—50	
Gulgong	b	63 35	0
Gunned'h	b	58 39	0
Hay	n	60 29	0
Hill End	n	— —	0
Inverell ..	n	57 33	0
Kiandra	n	51 14	0
Lismore	n	61 49	0·14
Maitland	n	59 25	0
Marsdens	n	55 33	0
Menindie	n	67 55	0
Molong ..	b	59 28	0
Moree ..	b	70 50	0
Moruya ..	b	64 35	0
Moss Vale	n	47 27	0
Mt. Hope	n	47 39	0
M. Vict'ria	n	50 23	0
Mudgee ..	b	71 24	0
M'rr'm'bh	b	61 28	0
M'rr'ndi	n	53 33	0
Mus'br'k	b	67 36	0
Narrabri	b	65 34	0
Newcastle	b	61 44	0
Nowra ..	—	— —	—
Orange ..	n	46 20	0
Picton ..	b	57 26	0
P. M'q'rie	b	62 43	0
P. St'ph'n	b	47 32	0·05
Q'nbeyan	n	46 28	0
Quirindi	n	63 33	0
Singleton	f	60 46	0
SYDNEY ..	b	58 42	0
Tam'w'rth	n	59 31	0
Taralga ..	n	63 25	0
Tarce	b	64 44	0
T'nt'rfield	n	57 32	0
Wagga ..	n	54 29	0
Walcha ..	n	49 25	0
Walgett ..	b	58 37	0
W'ntw'rth	n	59 28	0
Wilcannia	b	— —	0
W'll'ng'ng	b	63 40	0
Young ..	n	73 27	0

Average Annual Rainfall for 27 years..... 40·805
Average for 28 years from Jan. 1st to May 31st ... 25·356
Total Rainfall from January 1st to JUNE 30th 1·632
Barometer reduced to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each observation the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with rain, cloudy weather; and a black spot, raining. Next to the symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol, showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: P, Perth; Ay, Albany; Fa, Eucla; CB, Cape Borda; A, Adelaide; Ie, Robe; P, Portland; M, Melbourne; W 1, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. In and the station barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Esperance Bay: Misty rain, with light east wind, and rough sea; barometer fallen to 30·15; temperature 51°, and 3 points rain. Perth: Calm and fine; barometer 30·32; temperature 51°; rain, 9 points. Albany: Showery, fresh S.S.W. wind, and moderate sea; barometer, 30·18; rain, 41 points.

South Australia.—Generally fine and cold, with light northerly winds, fallen barometers, and moderate sea. No rain fallen, but heavy dew at Adelaide. Extremes of barometers and temperature—On coast: Port Augusta, 30·55; Eucla, 30.26 and 50°; and M'Donnell Bay, 37°. In Northern Territory: Daly Waters, 30·21 and 51°; Port Darwin, 29·99 and 70°.

Victoria.—Generally fine, with light north and east winds, steady barometers, and moderate sea. Rough sea at Lakes entrance, misty at Cape Otway, and frosty inland. Extremes of barometers and temperatures: Ballarat, 30·58 and 35°; Wilson's Promontory, 30·46, and Omeo, 33°. No rain fallen.

Tasmania.—Generally fine, with light south and west winds, and moderate sea. Rough sea at Falmouth. Frosty at Low Heads. Extremes of barometers and temperature: Circular Head, 30·48; Southport, 30·38 and 50°; and Low Heads, 38°.

New Zealand.—On North Island, fine; in South, showery and snowing. Winds light, from W. and S W. Barometers: Russell, 29·9; Wellington, 29·3; and Bluff, 29·5.

New South Wales.—Fine and cold throughout. Inland calm. On coast light to moderate south and west winds, and moderate to heavy sea. Barometers generally are high, and have risen slightly. Severe frosts along the range, and in south ports. Light rain fallen at two stations in north-coast districts. The Darling River continues to rise, being highest at Brewarrina, viz., 29 feet 3 inches above summer level, and at Mogil Mogil the river runs over its banks, and is still rising. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·66; Forbes, 30·35; Lismore, 52°; and Cooma, 21°. Extra stations: Bundarra, max. 65°, min. 41°, calm and fine; Morangarell, max. 46°, min. 38°, fine and frosty; Warrah, max. 65°, min. 35°, calm, fine and clear. For further particulars see map.

Queensland.—Generally fine, with light S. and S.E. winds, and moderate sea. Rough sea off Cape Moreton. Rainfall: Cape Moreton, 1·22. Extremes of barometers and temperature: Brisbane, 30·49 and 61°; Townsville, 29·97; and Cooktown, 86°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N., fine, sea smooth, temperature 56°; Cape Otway, S.E., 6, fine, hazy, sea smooth, temperature 57°; Wilson's Promontory, W., 18, squally, moderate sea, temperature 52°.

New South Wales.—Menindie, S., 14, fine and clear, temperature 53°; Wentworth, N., 14, fine and clear, temperature 51°; Deniliquin, calm, fine and cold, temperature 56°; Eden, S.W., 14, fine, light sea, temperature 57°; Moruya, N.E., 14, fine, moderate sea, temperature 57°; Cape St. George, S., 28, fine, sea going down, temperature 57°; Sydney, S., 10, fine, smooth sea, temperature 51°; Newcastle, S., 10, fine, moderate sea, temperature 60°; Port Macquarie, S.S.E., 28, fine, heavy sea, temperature 44°; Clarence River, S., 20, fine, moderate sea, temperature 62°; Dubbo, calm, fine, temperature 55°; Goulburn, calm, fine, temperature 51°. The sea has been heavy all day at Port Macquarie.

STATE OF RIVERS.

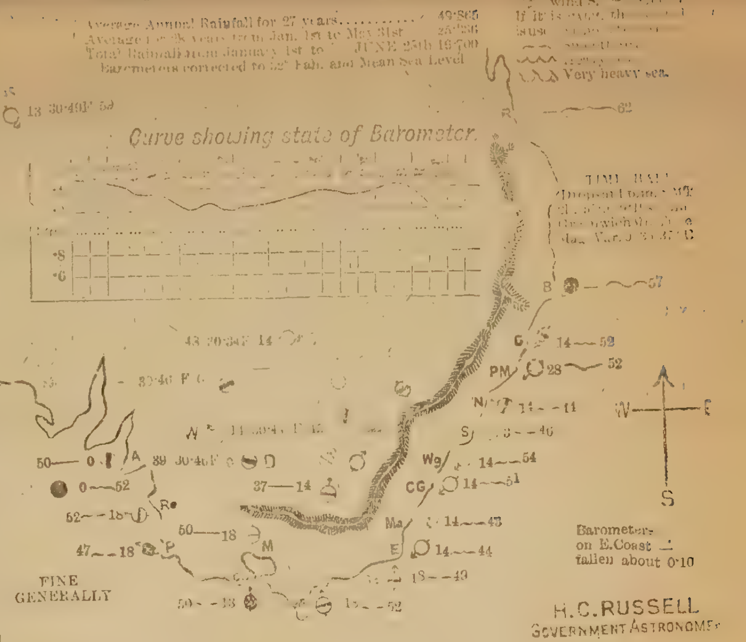
Barwon, 25 feet above summer level; Brewarrina, 29 feet 3 inches above summer level; Goodoga, 5 feet above summer level; Gundagai, below summer level; Louth, 21 feet 9 inches above summer level; Mogil Mogil, over banks and rising; Mungindi, 24 feet above summer level; Namoi, low; Tilpa, 24 feet 4 inches above summer level. Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, below summer level; at Balranald, 7 inches above summer level. At Albury, 10 inches above summer level. Murray: At Euston, 1 foot 7 inches above summer level; at Echuca, 1 foot 3 inches above summer level; Darling: At Wentworth, 3 inches above summer level; at Pooncarie, below summer level; at Menindie, 15 feet 2 inches above summer level; at Wilcannia, 21 feet above summer level; at Bourke, 27 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JUNE 29.

Sun rises at 7.7, sets at 4.59; Moon rises at 3.1 a.m., sets 1.55 p.m. Mercury, 8.22 a.m., 6.8 p.m.; Venus, 4.6 a.m., 2.32 p.m.; Mars, 11.30 a.m., 11.28 p.m.; Jupiter, 11.32 a.m., 11.26 p.m.; Saturn, 7.31 a.m., 5.25 p.m. New Moon, 3rd; Full Moon, 16th.

High water at Fort Denison, June 28: 4.28 a.m., 5.4 p.m.

Albury	c	56 36	0
Armidale	f	61 32	0
Balranald	g	71 33	0
Bathurst	n	59 25	0
Bend'm'r	n	56 32	0
Bodalla..	g	— 25	0
Bourke..	b	70 40	0
C'md'n H	b	65 48	0
C.St.Geo	g	65 53	0
Carcoar..	n	49 30	0
Casino ..	b	70 49	0
Cassilis..	f	55 48	0
[illegible]ence	c	[illegible]	0
C'ne'b'lin	b	54 34	0
Cooma ..	n	[illegible]	0
Coonab'n	r	65 [illegible]	0
C'namble	b	[illegible]	0
Cowra ..	n	59 32	0
Deniliq'n	c	64 24	0
Dubbo ..	b	63 32	0
Eden	b	57 40	0
Euston ..	b	70 57	0
Forbes ..	b	60 38	0
Gl'n Inn's	b	61 33	0·32
Goulburn	g	58 27	0
Grafton..	f	66 40	0
Gulgong	f	63 35	0
Gunned'h	b	56 38	0
Hay	c	66 31	0
Hill End	b	——	0
Inverell..	b	61 34	0
Kiandra	n	55 14	0
Lismore	c	69 52	0·04
Maitland	f	52 28	0
Marsdens	n	61 32	0
Menindie	g	60 46	0
Molong ..	n	63 30	0
Moree ..	b	75 50	0
Moruya..	g	64 40	0
Moss Vale	n	40 30	0
Mt. Hope	g	51 42	0
M.Vict'ria	b	51 20	0
Mudgee..	n	76 28	0
M'rr'm'bh	b	63 29	0
M'rr'r'ndi	b	53 33	0
Mus'lhr'k	f	60 35	0
Narrabri	b	62 36	0
Newcastle	f	64 43	0
Nowra ..	—	——	—
Orange ..	n	48 28	0
Picton ..	n	58 30	0
P. M'q'rie	b	64 45	0
P. St'ph'n	b	59 36	0
Q'nbeyan	b	48 29	0
Quirindi	n	69 38	0
Singleton	b	58 40	0
Sydney ..	b	60 44	0
Ta'nw'rth	b	64 35	0
Taralga..	n	64 31	0
Taree	b	64 46	0
T'nt'rfield	b	60 32	0
Wagga ..	c	56 32	0
Walcha ..	f	55 27	0
Walgett..	b	60 39	0
W'ntw'rth	b	62 43	0
Wilcannia	c	——	0
W'll'ng'ng	b	67 50	0
Young ..	g	78 32	0



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky [illegible] misty; n, frosty [illegible] threatening. The next column [illegible] maximum temperature for previous 24 hours. M'n the column [illegible] the rain for the previous 24 hours. The symbol used [illegible] the wind symbol is placed [illegible] from which the wind is coming. A clear circle with [illegible] weather; a circle with bar, cloudy weather; and a black spot, rain [illegible] number of miles the wind [illegible] of the sea; and, lastly, [illegible] temperature at 9 a.m. The barometer curve shows the state of barometer from Perth to Cooktown: [illegible] Perth; Ay, Albany; Ea, Eucla; [illegible] Portland, M, Melbourne, W P, Wilson's Promontory; [illegible] Bay; Wg, Wollongong, S, Sydney; N, Newcastle; [illegible] River B, Brisbane; [illegible] Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and [illegible] Springs. The barometer curve enables one at a glance to trace the [illegible] beginning with Western Australia and passing along eastward; northerly winds [illegible] ceding them, and southerly following.

Western Australia.—Esperance Bay: Fine weather, light north wind, and smooth sea; barometer risen to 30·44; temperature 38°, and heavy dew.

South Australia.—On coast partially clouded, gloomy and threatening in places, with light west and south-west winds, fallen barometers, and moderate sea. Rough sea at Cape Borda and passing showers. Showery at M'Donnell Bay. Rainfall light but general along the coast; heaviest at M'Donnell Bay, where 30 points fell. In Northern Territory, fine, with S.E. winds. Extremes of barometers and temperature—On coast: Eucla, 30·45 and 55°; M'Donnell Bay, 30·21; and Adelaide, 50°. In Northern Territory: Daly Waters, 30·17 and 72°; Port Darwin, 29·98 and 79°.

Victoria.—Generally cloudy and gloomy, with fresh north and west winds, fallen barometers, and moderate sea. Rough sea at Lakes entrance, showery at Portland, misty rain at Cape Otway. Rainfall: Portland, 0·13; Hamilton, 0·04. Extremes of barometers and temperatures: Omeo, 30·29 and 43°; Wilson's Promontory, 30·18 and 52°.

Tasmania.—Generally cloudy and unsettled, with light variable winds, fallen barometers, and moderate sea. No rain, but heavy dew at Low Heads and Southport. Extremes of barometers and temperature: Low Heads, 30·20; Hobart, 30·07 and 39°; and Circular Head, 53°.

New Zealand.—On North Island, fine, with N.W. wind and calm; at Bluff, cloudy, with S.W. wind blowing 28 miles per hour. Barometers: Russell, 30·3; Wellington, 29·9; and Bluff, 29·8.

New South Wales.—In north parts fine, with fog along the range and at Newcastle. In south gloomy and unsettled, with frost on and near the range. Light rain fallen at two stations in extreme north of coast districts. Inland calm, and near coast light W. and S.W. winds. Barometers fallen generally, temperature risen, and sea moderately smooth. Extremes of barometers and temperature at 9 a.m.: Menindie and Deniliquin, 30·46; Eden, 30·22; Lismore, 56°; and Cooma, 27°. Extra stations: Bundarra, max. 56°, min. 37°, cloudy, cold and calm; Morangarell, max. 55°, min. 30°, calm and dull; Warrah, max. 67°, min. 44°, calm and fine. For further particulars see map.

Queensland.—In south cloudy; showery at Brisbane. In north fine; passing showers at Cooktown. Winds, light from S.E.; at Cooktown strong. Sea, moderately smooth; rough at Cooktown. Rainfall: Cooktown, 0·28; Cape Moreton, 0·90. Extremes of barometers and temperature: Brisbane, 30·12 and 57°; Townsville, 29·95; and Cooktown, 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 23, passing showers, sea smooth, temperature 53°; Cape Otway, W., 8, passing showers and misty, moderate sea, temperature 54°; Melbourne, W., 18, cloudy, temperature 56°; Cape Schanck, N.W., 23, cloudy and misty, moderate sea, temperature 54°; Wilson's Promontory, W.N.W., 37, threatening, fierce squalls, moderate sea, temperature 52°; Lakes' Entrance, W., 13, cloudy, moderate sea, temperature 58°.

New South Wales.—Menindie, S.W., 14, fine temperature 57°; Wentworth, W.S.W., fine, temperature 54°; Deniliquin, calm, fine, temperature 57°; Eden, calm, fine, sea smooth, temperature 54°; Moruya, N.W., 17, cloudy and dull, sea smooth, temperature 56°; Cape St. George, W., 17, fine, sea smooth, temperature 61°; Sydney, W., 3, cloudy and hazy, sea smooth, temperature 56°; Newcastle, N.W., 17, fine, sea smooth, temperature 62°; Port Macquarie, S.E., 14, fine, moderate sea, temperature 68°; Clarence River, S.E., 17, fine, moderate sea, temperature 66°; Walgett, calm, fine, temperature 67°; Dubbo, W., 14, fine, temperature 54°; Goulburn, W., dull, temperature 52°.

STATE OF RIVERS.

Barwon, 26 feet 6 inches above summer level; Brewarrina, 27 feet 6 inches above summer level; Goodoga, 6 feet above summer level; Gundagai, below summer level; Louth, 22 feet 11 inches above summer level; Mogil Mogil, over banks and rising fast; Mungindi, 24 feet above summer level; Namoi, low; Tilpa, 28 feet 9 inches above summer level. Murrumbidgee: At Wagga, 1 foot above summer level; at Balranald, 7 inches above summer level. Murray: At Albury, below summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 3 inches above summer level; at Pooncarie, below summer level; at Menindie, 16 feet 8 inches above summer level; at Wilcannia, 22 feet 3 inches above summer level; at Bourke, 28 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JUNE 29.

Mercury rises at 8.24 a.m., sets at 6.13 p.m.; Venus, 4.8 a.m., 2.32 p.m.; Mars, 11.28 a.m., 11.26 p.m.; Jupiter, 11.29 a.m., 11.23 p.m.; Saturn, 7.28 a.m., 5.22 p.m. New Moon, 3rd; Full Moon, 16th.

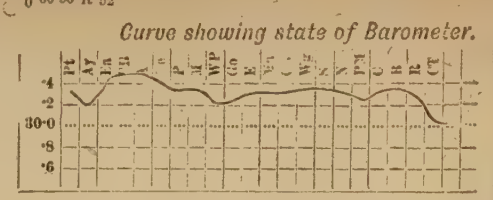
Albury	n	58 31	0
Armidale	b	53 37	0
Balranald	b	77 25	0
Bathurst	b	54 30	0
Bend'm'r	f	61 38	0
Bodalla ..	n	– .25	0
Bourke ..	b	72 42	0
C'md'n H	g	66 43	0
C. St. Geo	b	65 59	0
Carcoar ..	n	47 31	0
Casino ..	o	70 45	0
Cassilis ..	o	57 39	0
Clarence	b	68 53	0
C'nd'b'lin	b	59 39	0
Cooma ..	n	55 17	0
Coonab'n	g	63 34	0
C'nam ble	b	— —	0
Cowra ..	n	58 31	0
Deniliq'n	n	64 28	0
Dubbo ..	b	64 36	0
Eden	b	55 40	0
Euston ..	n	71 23	0
Forbes ..	b	62 39	0
Gl'n inn's	c	60 36	0
Goulburn	b	54 29	0
Gr'fton ..	g	74 42	0
Gulgong	b	63 37	0
Gunned'h	b	61 45	0
Hay	b	69 33	0
Hill End	b	— —	0
Inverell ..	g	59 40	0
Kiandra	n	41 23	0
Lismore	c	76 51	0
Maitland	g	60 40	0
Marsdens	n	60 35	0
Menindie	b	60 44	0
Molong ..	b	63 33	0
Moree ..	b	74 52	0
Moruya ..	b	59 37	0
Moss Vale	n	51 36	0
Mt. Hope	b	54 47	0
M. Vict'ria	b	51 23	0
Mudgee ..	n	67 32	0
M'rr'm'bh	b	61 29	0
M'rr'r'ndi	g	57 41	0
Mus'll'br'k	b	60 39	0
Narrabri	g	63 35	0
Newcastle	b	64 45	0
Nowra ..	–	– –	–
Orange ..	n	49 30	0
Picton ..	f	61 31	0
P. M'q'rie	g	66 49	0
P. St'ph'n	o	62 40	0
Q'nbeyan	n	49 31	0
Quirindi	n	68 38	0
Singleton	g	60 44	0
Sydney ..	n	58 47	0
Tam'w'rth	g	64 36	0
Taralga ..	n	52 28	0
Taree	c	60 48	0
T'nt'rfield	b	65 37	0
Wagga ..	n	55 33	0
Walcha ..	g	54 33	0
Walgett ..	b	65 42	0
W'ntw'rth	b	64 35	0
Wilcannia	b	— —	0
Wil'ng'ng	o	66 50	0
Young ..	n	64 29	0

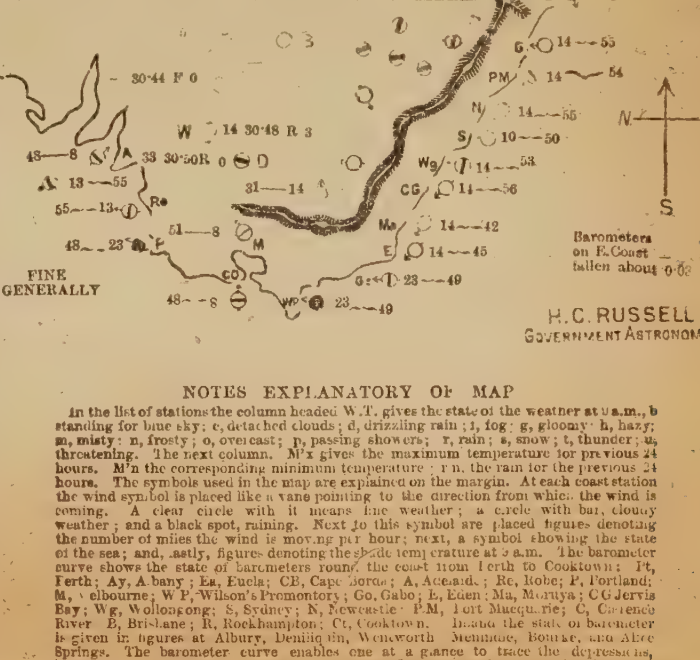
SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years ..... 49·805
Average for 28 years from Jan. 1st to May 31st 25·336
Total Rainfall from January 1st to JUNE 29th 16·700
Barometers corrected to 32° Fahr. and Mean Sea Level

wind N E.
T. storm wind S. Rain wind W.
If it is calm, the symbol is used without the arrow.
Smooth sea.
Heavy sea
Very heavy sea.





H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r n. the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Below the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast fresh easterly winds, on south coast light north and west winds, weather generally fine, sea smooth, no rain fallen. Extremes of barometers and temperature: Geraldton, 30·40; Albany, 30·11; Carnarvon, 74°; and Esperance Bay, 34°.

South Australia.—Generally cloudy, and dull on coast, with light north and west winds and moderate sea, showery at M'Donnell Bay. Rainfall: Cape Borda and Robe, each 0·05; M'Donnell Bay, 0·10. Inland and in Northern Territory fine and cold, with light S.E. winds and calms. Extremes of barometers and temperature: On coast—Cape Borda, 30·46 and 55°; Robe, 30·33, and Adelaide, 48°. In Northern Territory—Daly Waters, 30·17 and 72°; Port Darwin, 29·97 and 77°.

Victoria.—Generally cloudy and cold, with fresh west to north wind, and moderate sea; showery, misty, and squally along the coast; frosty and foggy inland. Rainfall: Hamilton, 0·01; Wilson's Promontory, 0·02; Cape Otway, 0·08; and Portland, 0·09. Extremes of barometers and temperature: Omeo, 30·38 and 40°; Wilson's Promontory, 30·22; and Horsham, 54°.

Tasmania.—Generally cloudy and threatening, with variable winds. Dead calm sea at Falmouth; rough off Southport. Rainfall: Low Heads, 0·04; Circular Head, 0·07. Extremes of barometers and temperature: On north coast, 30·20 and 49°; Falmouth, 30·06 and 44°.

New Zealand.—Generally fine; on North Island, calm; at Bluff, S.W. wind; showery on west coast. Barometers: Russell, 30·2; Wellington, 30·1; and Bluff, 30·0.

New South Wales.—In north parts, cloudy and gloomy on both sides of the range. In south and west, fine and clear, with heavy frost near the range. Inland, calm. On and near coast, light W. and S. winds; sea smooth; no rain fallen. Barometers generally have fallen, and temperature risen slightly. Extremes at 9 a.m.: Deniliquin, 30·50; Port Macquarie, 30·24; Cape St. George, 56°, and Cooma 22°. The flood-water on the Darling has now passed Pooncarie, where it runs 6 feet 9 inches above summer level. Extra stations: Bundarra, max. 65°, min. 40°, calm and fine; Morangarell, max. 54°, min. 30°, fine; Warrah, max. 68°, min. 38°, dull and threatening. For further particulars see map.

Queensland.—Generally fine, with light southerly winds and moderately smooth sea. Cooktown: Very strong S.E. wind, squally, and rough sea. Rainfall: Cape Moreton, 0·10; Brisbane, 0·07; and Cooktown, 0·49. Extremes of barometers and temperature: Brisbane, 30·34 and 59°; Townsville, 29·90,, and Cooktown 78°.

9 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 28, fine but cloudy, sea smooth, temperature 58°; Cape Otway, W.N.W., 13, cloudy and misty, moderate sea, temperature 55°; Melbourne, N.W., 8, cloudy and gloomy, temperature 55°; Cape Schanck, W.N.W., 23, fine but cloudy, moderate sea, temperature 55°; Wilson's Promontory, W., 23, showery and squally, moderate sea, temperature 51°; Lakes Entrance, W., 18, fine but cloudy, moderate sea, temperature 59°.

New South Wales.—Menindie, calm, fine, temperature 57°; Wentworth, N.E., 14, fine but cloudy, temperature 52°; Eden, S.W., 14, fine, sea smooth, temperature 57°; Moruya, E.N.E., 14, fine, sea smooth, temperature 58°; Cape St. George, S., 14, fine, temperature 58°; Sydney, calm, fine but cloudy, sea smooth, temperature 58°; Newcastle, S.E., 14, fine, sea smooth, temperature 61°; Port Macquarie, S., 28, cloudy and dull, sea smooth, temperature 64°; Clarence River, S.W., 14, fine, sea smooth, temperature 54°; Dubbo, calm, fine, temperature 58°; Goulburn, calm, fine, temperature 51°.

STATE OF RIVERS.

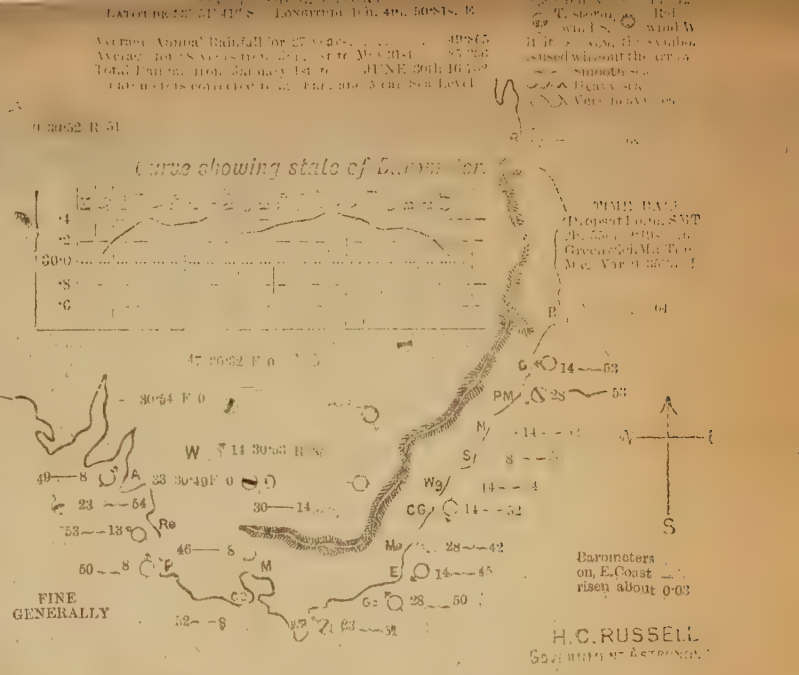
Barwon, 28 feet 8 inches above summer level; Brewarrina, 27 feet above summer level; Godooga, 6 feet 6 inches above summer level; Gundagai, below summer level; Louth, 23 feet 5 inches above summer level; Mogil Mogil, over banks; Mungindi, 24 feet 10 inches above summer level; Namoi, 3 feet above summer level; Tilpa, 26 feet 2 inches above summer level. Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, below summer level; at Balranald, 7 inches above summer level. Murray: At Albury, below summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 3 inches above summer level; at Pooncarie, 6 feet 9 inches above summer level; at Menindie, 17 feet 2 inches above summer level; at Wilcannia, 22 feet 9 inches above summer level; at Bourke, 29 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JUNE 30.

Sun rises at 7.7, sets at 5.0; Moon, 5.3 a.m., 3.25 p.m.; Mercury, 8.26 a.m., 6.18 p.m.; Venus, 4.10 a.m., 2.32 p.m.; Mars, 11.26 a.m., 11.24 p.m.; Jupiter, 11.26 a.m., 11.20 p.m.; Saturn, 7.25 a.m., 5.19 p.m. New Moon, 3rd; Full Moon, 16th.

High water at Port Denison, June 30: 6.39 a.m., 7.7 p.m.

Albury	n	56 29	0	
Armidale	c	52 39	0	
Balranald	n	75 21	0	
Bathurst	f	57 26	0	
Bend'm'r	n	57 29	0	
Bodalla ..	n	— 28	0	
Bourke ..	b	73 40	0	
C'md'n H	c	63 54	0	
C. St. Geo	b	63 58	0	
Carcoar ..	n	47 26	0	
Casino ..	g	69 47	0	
Cassilis ..	o	55 54	0	
Clarence	b	68 53	0·60	
C'nd'b'lin	n	58 37	0	
Cooma ..	n	58 15	0	
Coonab'n	n	60 25	0	
C'namble	b	— —	0	
Cowra ..	n	57 30	0	
Deniliq'n	n	62 25	0	
Dubbo ..	n	64 31	0	
Eden	b	56 49	0	
Euston ..	n	73 23	0	
Forbes ..	b	63 57	0	
Gl'n Inn's	b	61 38	0	
Goulburn	b	61 22	0	
Gr'fton ..	c	68 50	0	
Gulgong	g	63 36	0	
Gunned'n	b	61 41	0	
Hay	n	62 30	0	
Hill End	b	— —	0	
Inverell ..	b	59 37	0	
Kiandra	n	49 13	0	
Lismore	c	68 55	0	
Maitland	c	59 47	0	
Marsdens	n	60 85	0	
Menindie	f	60 40	0	
Molong ..	n	64 28	0	
Moree ..	b	70 63	0	
Moruya ..	b	61 39	0	
Moss Vale	n	49 37	0	
Mt. Hope	n	52 43	0	
M. Vict'ria	c	50 33	0	
Mudgee ..	n	75 26	0	
M'r'm'bh	b	66 29	0	
M'r'r'ndi	n	53 34	0	
Mus'br'k	b	63 31	0	
Narrabri	c	64 38	0	
Newcastle	c	65 52	0	
Nowra ..	—	—	—	
Orange ..	n	47 28	0	
Picton ..	g	61 38	0	
P. M'q'rie	c	65 46	0	
P. St'ph'n	c	61 38	0	
Q'nbeyan	n	48 29	0	
Quirindi	n	69 30	0	
Singleton	b	60 45	0	
Sydney ..	c	60 49	0	
Tamw'rth	b	62 35	0	
Taralga ..	n	63 21	0	
Taree ..	g	63 47	0	
T'nt'rfield	b	63 38	0	
Wagga ..	n	56 32	0	
Wacha ..	o	53 29	0	
Walgett ..	b	83 39	0	
W'nt'w'rth	b	61 31	0	
Wilcannia	b	— —	0	
W'll'ng'ng	c	67 47	0	
Young ..	n	60 35	0	



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; rn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figure denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the sea-temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: P, Perth; Ay, Albany; Ea, Eucla; CE, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Nat, Moruya; C G Jervis Bay; Wg, Wollongong; Sy, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Round the coast the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Mc Kinnon's Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds blowing them, and southerly following.

Western Australia.—On south coast fine weather, with northerly winds and smooth sea. No rain. Extremes of barometers and temperature; Eucla, 30·23 and 52°; Albany, 30·02; and Esperance Bay, 41°.

South Australia.—Generally fine and cold. On south coast westerly winds and moderate sea. Squally at M'Donnell Bay, and five points rain. In Northern Territory fine, with southerly winds. Extremes of barometers and temperature: On coast—Port Augusta, 30·43; Cape Borda, 54°; M'Donnell Bay, 30·34; and Adelaide, 49°. In Northern Territory—Daly, 30·17 and 68°; Port Darwin, 29·96 and 77°.

Victoria.—Generally fine and cold, with light north wind, and moderate sea; misty, and heavy dew on coast; frosty inland. Rainfall: Wilson's Promontory, 0·19; Portland, 0·02. Extremes of barometers and temperature: Ballarat, 30·45; Cape Schanck, 53° (misty and rough sea); Wilson's Promontory, 30·30; and Omeo, 32°.

Tasmania.—Generally cloudy, with light westerly winds and moderate sea. Rainfall: Southport, 0·09; Low Heads, 0·03; Circular Heads, showery from S.W., and 17 points rain. Extremes of barometers and temperature: Circular Heads, 30·28; Low Heads, 54°; Hobart, 30·19; and Southport, 42°.

New Zealand.—Generally fine, with light north-west wind. Barometers: Russell, 30·3; Wellington, 30·0; and Bluff, 29·9.

New South Wales.—Generally fine and frosty; in coast districts, north of Wollongong, cloudy and dull, with light rain fallen at Clarence Heads. Inland, calm, and fallen barometers. On coast, risen barometers, light west and S.W. winds, and smooth sea. The Darling still continues to rise throughout its entire length, running over its bank at Mogil Mogil, and 31 feet above summer level at Walgett. Extremes of barometers and temperature: Menindie, 30·54; Forbes, 30·22; Wollongong, 54°; and Cooma, 24°. Extra stations: Bundarra, max. 65°, min. 36°, calm and frosty; Morangarell, max. 58°, min. 27°, and frosty; Warrah, max. 70°, min. 40°, calm, fine, and clear. For further particulars see map.

Queensland.—Generally fine, with light winds from S.E. and S.W. and moderate sea. Cape Moreton, 66 points rain. Extremes of barometers and temperature: Brisbane, 30·32 and 64°; Townsville, 29·88; and Cooktown, 78°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 18, fine, sea smooth, temperature 60°; Cape Otway, N.W., 8, fine and misty, moderate sea, temperature 58°; Melbourne, N.N.E., 8, fine, temperature 61°; Cape Schanck, W.N.W., 13, fine but cloudy, sea smooth, temperature 56°; Wilson's Promontory, N.W., 18, fine but cloudy, moderate sea, temperature 57°; Lakes Entrance, W., 8, fine, sea smooth, temperature 58°.

New South Wales.—Menindie, calm, fine and clear, temperature 57°; Wentworth, N., 14, fine and clear, temperature 52°; Eden, calm, fine, sea smooth, temperature 58°; Moruya, E.N.E., 14, fine, sea smooth, temperature 58°; Cape St. George, S.W., 14, fine and clear, smooth sea, temperature 60°; Sydney, W., 7, cloudy and dull, sea smooth, temperature 58°; Newcastle, S.E., 14, fine, sea smooth, temperature 62°; Port Macquarie, S.S.W., 28, unsettled, sea smooth, temperature 61°; Clarence River, S., 14, cloudy, sea smooth, temperature 65°; Walgett, S., fine, temperature 61°; Dubbo, E., 14, fine, temperature 57°; Goulburn, calm, fine, temperature 52°.

STATE OF RIVERS.

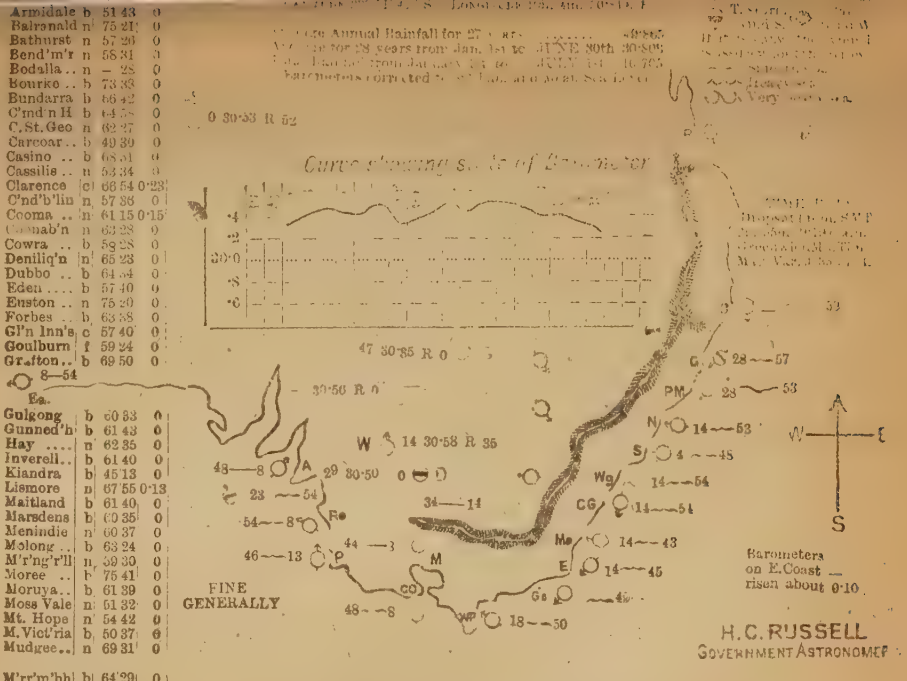
Barwon, 30 feet 11 inches above summer level; Brewarrina, 26 feet 6 inches above summer level; Godooga, 6 feet 6 inches above summer level; Gundagai, below summer level; Louth, 23 feet 11 inches above summer level; Mungindi, 27 feet above summer level; Mogil Mogil, over banks and rising; Namoi, 4 feet 6 inches above summer level; Tilpa, 26 feet 9 inches above summer level. Murrumbidgee: At Wagga, 11 inches above summer level: at Hay, below summer level; at Balranald, 7 inches above summer level. Murray: At Albury, below summer level; at Euston, 1 foot 10 inches above summer level. Darling: At Wentworth, 3 inches above summer level; at Pooncarie, 11 feet 2 inches above summer level; at Menindie, 17 feet 7 inches above summer level; at Wilcannia, 23 feet 2 inches above summer level; at Bourke, 28 feet above summer level.

ASTRONOMICAL MEMORANDA FOR

Sun rises at 7.7, sets at 5.0; Moon, [illegible] a.m., 4.19 p.m.; Mercury, 8.29 a.m., 6.23 p.m.; Venus, 4.11 a.m., 2.33 p.m.; Mars, 11.23 a.m., 11.23 p.m.; Jupiter, 11.22 a.m., 11.16 p.m.; Saturn, 7.21 a.m., 5.15 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 1—7.38 a.m., 7.59 p.m.

Armidale	b	51 43	0
Balranald	n	75 [illegible]	0
Bathurst	n	57 [illegible]	0
Bend'm'r	n	58 81	0
Bodalla ..	n	— 28	0
Bourke ..	b	73 88	0
Bundarra	b	66 42	0
C'nd'n H	b	64 [illegible]	0
C.St.Geo	n	62 27	0
Carcoar ..	b	49 39	0
Casino ..	b	68 81	0
Cassilis ..	n	53 34	0
Clarence	c	66 54	0·23
C'nd'b'lin	n	57 36	0
Cooma ..	n	61 15	0·15
Coonab'n	n	63 28	0
Cowra ..	b	58 28	0
Deniliq'n	n	65 23	0
Dubbo ..	b	64 [illegible]	0
Eden	b	57 40	0
Euston ..	n	75 20	0
Forbes ..	b	63 38	0
Gl'n Inn's	c	57 40	0
Goulburn	f	59 24	0
Grafton..	b	69 50	0
Gulgong	b	60 33	0
Gunned'h	b	61 43	0
Hay	n	62 35	0
Inverell..	b	61 40	0
Kiandra	b	45 13	0
Lismore	n	67 55	0·13
Maitland	b	61 40	0
Marsdens	b	60 35	0
Menindie	n	60 37	0
Molong ..	b	63 24	0
M'r'ng'r'll	n	59 30	0
Moree ..	b	75 41	0
Moruya..	b	61 39	0
Moss Vale	n	51 32	0
Mt. Hope	n	54 42	0
M.Vict'ria	b	50 37	0
Mudgee..	n	69 31	0
M'rr'm'bh	b	64 29	0
M'rr'r'ndi	n	54 35	0
Mus'lbr'k	h	63 32	0
Narrabri	b	64 35	0
Newcastle	c	62 46	0
Orange ..	b	50 31	0
Picton ..	n	59 34	0
P. M'q'rie	g	63 47	0
P. St'ph'n	c	55 36	0
Q'beyan	b	49 31	0
Quirindi	n	69 39	0
Singleton	n	59 42	0
SYDNEY ..	b	59 48	0
Tam'w'rth	b	63 [illegible]	0
Taralga ..	b	66 27	0
Taree	n	66 50	0
T'nt'rfield	g	57 44	0
Wagga ..	b	56 34	0
Walcha ..	n	54 29	0
Walgett..	b	61 43	0
Warrah ..	b	60 42	0
W'ntw'rth	b	64 30	0
Wilcannia	b	—|—	0
W'll'ng'ng	b	65 49	0
Young ...	n	78 31	0



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each observation the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ke, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine; on west coast easterly winds; on south coast calm, sea smooth, and no rain fallen. Extremes of barometers and temperature: Esperance Bay, 30·27 and 39°; Cossack, 29·99; and Carnarvon, 76.

South Australia.—Generally fine and cold. On south coast northerly winds and moderate sea. No rain fallen, but foggy at Adelaide. Inland calm; and in Northern Territory S.E. winds. Extremes of barometers and temperature: On coast—Adelaide, 30·48; Eucla, 30·35 and 54°; M'Donnell Bay, 42°. In Northern Territory—Daly Waters, 30·19 and 68°; Port Darwin, 30° and 74°.

Victoria.—Generally fine, with light northerly winds, risen barometers, and moderately smooth sea; squally at Wilson's Promontory; misty and heavy dew along the coast; heavy frost inland. No rain fallen. Extremes of barometers and temperature: Melbourne, 30·52; Wilson's Promontory, 30·37; Cape Schanck, 53°; and Omeo, 35°.

Tasmania.—Generally cloudy and gloomy, with fresh westerly winds and moderate sea. Dead calm sea off Falmouth. Rainfall: Circular Heads 0·15; Low Heads, 0·11; Southport, 0·03. Extremes of barometers and temperature: Circular Heads, 30·34; Southport, 30·16 and 57°; and Falmouth, 48°.

New Zealand.—Generally fine, with light S.W. winds and risen barometers. Gloomy at Russell. Barometers: Russell and Wellington, 30·2; and Bluff, 30·1.

New South Wales.—Generally fine and frosty, with light south and westerly winds, risen barometers, and smooth sea. Cloudy at a few stations in extreme north. Foggy just south of Sydney. Light rain fallen at three stations, scattered; and in suburbs south of Sydney. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·58; Dubbo, 30·34; Lismore and Clarence, 57°; and Cooma, 24°. The Darling continues to rise, running over its banks at Mogil Mogil, and 32 feet 8 inches above summer level at Walgett. The Murray and Murrumbidgee rivers are again falling. Extra stations: Coonamble, calm, fine, and cool; Hill End, calm and fine. For further particulars see map.

Queensland.—Fine in south, cloudy in north, with light winds from S.E. to S.W., and moderate sea; showery at Cape Moreton, and four points fallen. Extremes of barometers and temperature: Brisbane, 30·34 and 59°; Townsville, 29·94; and Cooktown, 79°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 8, fine but cloudy, sea smooth, temperature 56°; Cape Otway, N.W., 8, fine and misty, sea moderate, temperature 57°; Melbourne, N.E., 8, fine, temperature 56°; Cape Schanck, W., 13, fine, sea smooth, temperature 55°; Wilson's Promontory, N.W., 18, cloudy but squally, sea smooth, temperature 55°; Lakes Entrance, W., 13, fine, sea smooth, temperature 56°.

New South Wales.—Menindie, calm, fine, temperature 49°; Wentworth, N., fine, temperature 41°; Deniliquin, S., 14, fine, temperature 59°; Eden, N.E., 14, fine, sea smooth, temperature 57°; Moruya, N.E., 28, fine, sea smooth, temperature 61°; Cape St. George, N., 14, fine, smooth sea, temperature 63°; Sydney, N., 4, fine, sea smooth, temperature 59°; Newcastle, S.S.E., 14, fine, sea smooth, temperature 61°; Port Macquarie, S., 28, fine, sea smooth, temperature 66°; Clarence River, S., 28, showery, sea smooth, temperature 64°; Walgett, calm, fine, temperature 64°; Dubbo, calm, fine, temperature 65°; Goulburn, calm, fine, temperature 51°; Brewarrina, E., river falling.

STATE OF RIVERS.

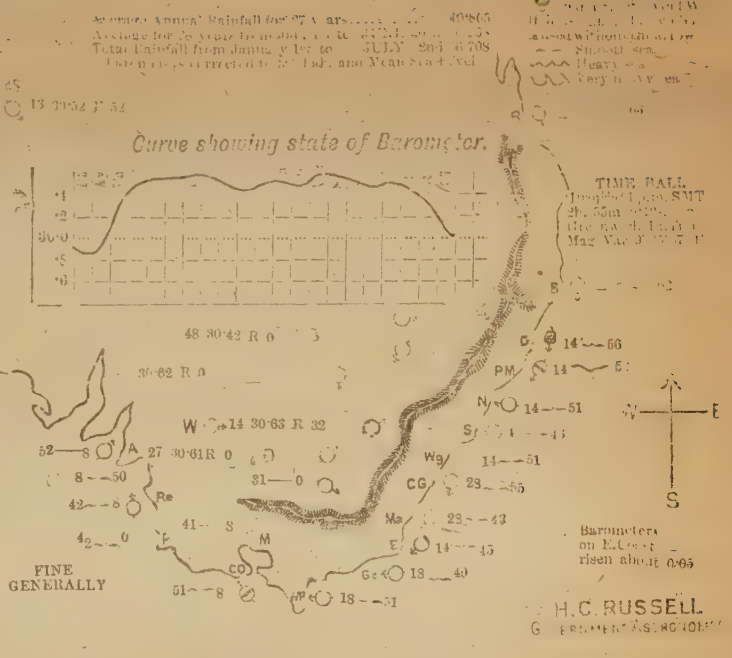
Barwon, 32 feet 8 inches above summer level; Brewarrina, 26 feet above summer level; Godooga, 7 feet 4 inches above summer level; Gundagai, below summer level; Louth, 24 feet 3 inches above summer level; Mungindi, 27 feet above summer level; Namoi, 6 feet above summer level; Tilpa, 2 feet 3 inches above summer level; Mogil Mogil, over banks. Murrumbidgee: At Wagga, 11 inches above summer level; at Hay, below summer level; at Balranald, 7 inches above summer level. Murray: At Albury, below summer level; at Euston, 1 foot 10 inches above summer level. Darling: At Wentworth, 3 inches above summer level; at Pooncarie, 12 feet 6 inches above summer level; at Menindie, 17 feet 11 inches above summer level; at Wilcannia, 24 feet 10 inches above summer level; at Bourke, 28 feet 4 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 2.

Sun rises at 7.7, sets at 5.0; Moon, 7.5 a.m., 5.19 p.m.; Mercury, 8.30 a.m., 6.27 p.m.; Venus, 4.13 a.m., 2.33 p.m.; Mars, 11.21 a.m., 11.22 p.m.; Jupiter, 11.18 a.m., 11.18 p.m.; Saturn, 7.17 a.m., 5.11 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 2: 8.24 a.m., 8.48 p.m.

Balranald	n	75	21	0
Bathurst	f	59	35	0
Bend'm'r	f	58	34	0
Bodalla	n	—	30	0
Bourke	b	75	43	0
Bundarra	b	63	40	0
C'md'n H	b	66	55	0
C. St. Geo	b	66	59	0
Carcoar	b	50	31	0
Casino	g	71	48	0·07
Cassilis	n	55	33	0
Clarence	r	67	54	0·01
C'nd'b'lla	n	59	36	0
Cooma	n	61	15	0
Coonab'n	n	66	23	0
Cowra	b	60	51	0
Deniliq'n	n	62	22	0
Dubbo	b	67	32	0
Eden	b	57	41	0
Euston	n	76	19	0
Forbes	b	61	38	0
Gl'n Inn's	c	57	41	0
Goulburn	b	56	23	0
Gr.fton	g	71	51	0
Ha				
Gulgong	b	63	39	0
Gunned'h	b	62	43	0
Hay	b	63	34	0
Inverell	b	63	38	0
Kiandra	n	50	10	0
Lismore	c	71	56	0·24
Maitland	b	58	37	0
Marsdens	n	62	36	0
Menindie	n	58	38	0
Molong	n	63	28	0
M'r'ng'r'll	n	61	29	0
Moree	b	77	46	0
Moruya	b	66	40	0
Moss Vale	f	50	29	0
Mt. Hope	b	55	45	0
M. Victoria	b	51	35	0
Mudgee	n	74	26	0
M'r'm'bh	b	65	29	0
M'r'r'ndi	n	54	39	0
Mus'br'k	f	63	32	0
Narrabri	b	65	38	0
Newcastle	b	64	45	0
Orange	n	49	27	0
Picton	n	59	30	0
P. M'q'rie	g	66	49	0·63
P. St'ph'n	b	61	38	0
Q'nbeyan	n	50	33	0
Quirindi	n	70	39	0
Singleton	b	60	41	0
Sydney	h	60	55	0
Tamw'rth	b	66	35	0
Taralga	n	66	20	0
Taree	b	67	47	0
T'nt'rfield	g	57	45	0
Wagga	n	59	34	0
Walcha	b	55	30	0
Walgett	b	63	43	0
Warrah	b	65	40	0
W'ntw'rth	n	62	28	0
Wilcannia	b	—	—	0
Will'ng'ng	b	67	43	0
Young	n	80	30	0



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go. Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; E, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast fine, with light N. to E. winds; on south coast fine, with north winds. Sea smooth, and no rain fallen. Extremes of barometers and temperature: Esperance Bay, 30·10; Albany, 29·82; Cossack, 67°; and Perth, 44°.

South Australia.—Generally fine and cold, with risen barometers. On coast north and N.E. winds and moderate sea. Inland and in Northern Territory light S.E. winds. One point of rain fallen at Robe. Extremes of barometers and temperature: On coast—Robe 30·59 and 42°; Eucla, 30·30 and 56°. In Northern Territory—Daly Waters, 30·16 and 67°; Port Darwin, 29·98 and 72°.

Victoria.—Generally fine and cold, with light variable winds, very high barometers and moderate sea; squally west winds at Wilson's Promontory; misty at Capes Schanck and Otway; heavy frost inland. No rain fallen. Extremes of barometers and temperature: Melbourne, 30·62; Wilson's Promontory, 30·49; Cape Schanck, 54°; and Omeo, 35°.

Tasmania.—Generally fine but cloudy, with fresh westerly winds, risen barometers, and moderate sea. Rainfall: Circular Heads 0·06; Southport, 0·15. Extremes of barometers and temperature: Circular Heads, 30·50; Southport, 30·39 and 54°, and Falmouth 50°.

New Zealand.—On North Island fine, with variable winds. At Bluff west wind, blowing 34 miles per hour, and passing showers. Barometers: Russell, 30·1; Wellington, 30·0; and Bluff, 29·9.

New South Wales.—Generally fine and cold, with very high barometers. Inland light variable winds, and calm. On coast south and S.W. winds, and smooth sea. In S. and S.W. parts frosty, and along the range heavy frost, with fog in places. In north coast districts cloudy and gloomy, and raining at Clarence. Light rain recorded in last-mentioned district, heaviest at Port Macquarie, where 63 points fell. Lismore reports heavy showers during night. Clarence Heads had 13 feet of water on the bar at high tide this morning. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·63; Dubbo, 30·34; Lismore, 57°; and Kiandra, 22°. Brewarrina, S.E. 14, max. 67, min. 39. For further particulars see map.

Queensland.—Generally fine, with light south to east winds, risen barometer, and moderate sea. Cooktown reports: Very strong squally S.E. wind and rough sea. Rainfall: Cooktown, 0·30; Cape Moreton, 0·05; Brisbane, 0·02. Extremes of barometers and temperature: Brisbane, 30·42 and 62.; Townsville, 29·94; and Coktown, 79°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.N.E., 8, fine, sea smooth, temperature 59; Cape Otway, W.N.W., 8, fine and misty, sea moderate, temperature 60°; Melbou ne, S., 8, fine, temperature 56°; Cape Schanck, calm, fine and hazy, sea smooth, temperature 56°; Wilson's Promontory, W., 18, fine but cloudy, sea smooth, temperature 54°; Lakes Entrance, W., 8, fine, sea smooth, temperature 57°.

New South Wales.—Menindie, calm, fine, temperature 54°; Wentworth, N., 14, fine, temperature 51°; Deniliquin, calm, fine and clear, temperature 58°; Eden, S.S.W., 14, fine, sea smooth, temperature 59°; Moruya, N.E., 28, fine, sea smooth, temperature 58°; Cape St. George, S., 42, fine, smooth sea, temperature 59°; Sydney, S., 14, fine, sea smooth, temperature 59°; Newcastle, S.E., 14, fine, sea smooth, temperature 61°; Port Macquarie, S., 42, fine, sea smooth, temperature 65°; Clarence River, S., 14, showery, sea moderate, temperature 61°; Walgett, S.E., 14, fine, temperature 64°; Dubbo, S., 14, fine, temperature 52°; Goulburn, calm, fine, temperature 52°.

STATE OF RIVERS.

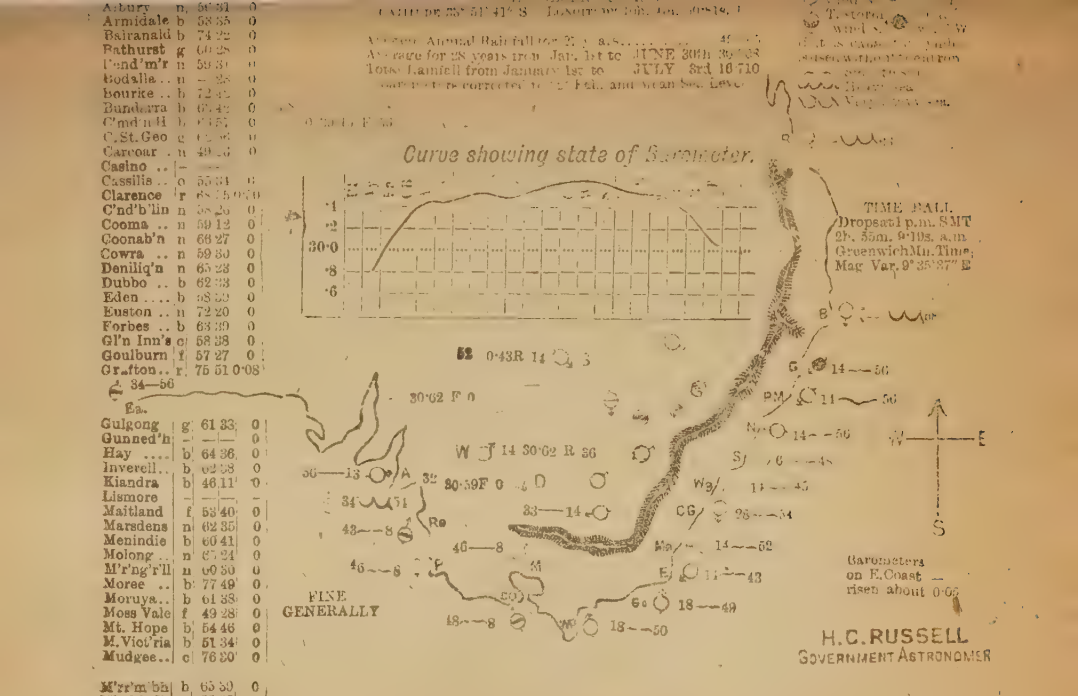
Barwon, 34 feet 11 inches above summer level; Brewarrina, 25 feet 9 inches above summer level; Godooga, 8 feet above summer level; Gundagai, below summer level; Louth, 24 feet 7 inches above summer level; Mogil Mogil, over banks; Mungindi, 28 feet above summer level; Namoi, 8 feet 10 inches above summer level; Tilpa, 27 feet 10 inches above summer level. Murrumbidgee: At Wagga, 11 inches above summer level; at Hay, below summer level; at Balranald, 7 inches above summer level. Murray: At Albury, below summer level; at Euston, 1 foot 11 inches above summer level. Darling: At Wentworth, 3 inches above summer level; at Pooncarie, 13 feet 9 inches above summer level; at Menindie, 18 feet 2 inches above summer level; at Wilcannia, 24 feet 4 inches above summer level; at Bourke, 28 feet above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 3.

Sun rises at 7.7, sets at 5.1; Moon, 8.2 a.m., 6.24 p.m.; Mercury, 8.31 a.m., 6.31 p.m.; Venus, 4.15 a.m., 2.33 p.m.; Mars, 11.19 a.m., 11.21 p.m.; Jupiter, 11.14 a.m., 11.10 p.m.; Saturn, 7.12 a.m., 5.6 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 3: 9.12 a.m., 9.35 p.m.

Albury	n	58 31	0	
Armidale	b	58 55	0	
Bairanald	b	74 22	0	
Bathurst	g	60 28	0	
Bend'm'r	n	59 30	0	
Bodalla ..	n	— —	0	
Bourke ..	b	72 42	0	
Bundarra	b	65 42	0	
C'nd'rnHi	b	63 57	0	
C.St.Geo	g	62 36	0	
Carcoar ..	n	49 36	0	
Casino ..	—	—	—	
Cassilis ..	o	55 34	0	
Clarence	r	68 50	0·70	
C'nd'b'lin	n	58 26	0	
Cooma ..	n	59 12	0	
Coonab'n	n	66 27	0	
Cowra ..	n	59 30	0	
Deniliq'n	n	65 23	0	
Dubbo ..	b	62 33	0	
Eden	b	58 50	0	
Euston ..	n	72 20	0	
Forbes ..	b	63 39	0	
Gl'n Inn's	c	58 38	0	
Goulburn	f	57 27	0	
Gr..fton..	r	75 51	0·08	
Gulgong	g	61 33	0	
Gunned'h	—	— —	0	
Hay	b	64 36	0	
Inverell..	b	62 38	0	
Kiandra	b	46 11	0	
Lismore	—	— —	—	
Maitland	f	58 40	0	
Marsdens	n	62 35	0	
Menindie	b	60 41	0	
Molong ..	n	65 24	0	
M'r'ng'rfl	n	60 30	0	
Moree ..	b	77 49	0	
Moruya..	b	61 38	0	
Moss Vale	f	49 28	0	
Mt. Hope	b	54 46	0	
M.Vict'ria	b	51 34	0	
Mudgee..	c	76 50	0	
M'r'm'ba	b	65 30	0	
M'r'r'ndi	g	55 33	0	
Mus'br'k	g	64 33	0	
Narrabri	h	66 38	0	
Newcastle	b	63 51	0	
Orange ..	n	50 32	0	
Picton ..	n	62 37	0	
P. M'q'rie	b	65 51	0	
P. St'ph'n	b	55 40	0·06	
Q'nbeyan	n	47 32	0	
Quirindi	b	49 38	0	
Singleton	b	65 42	0	
SYDNEY ..	h	60 46	0	
Tam'w'rth	b	65 34	0	
Taralga ..	n	60 28	0	
Taree	b	64 49	0	
Tnt'rfield	b	58 41	0	
Wagga ..	b	57 39	0	
Walcha ..	n	53 27	0	
Walgett..	b	65 46	0	
Warrah ..	b	66 39	0	
W'ntw'rth	b	63 31	0	
Wilcannia	b	— —	0	
W'll'ng'ng	b	65 45	0	
Young ..	n	79 31	0	



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Max, gives the maximum temperature for previous 24 hours. M'm the corresponding minimum temperature; rain the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather, a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Eucla to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; note daily where preceding them, and southerly following.

Western Australia.—At Esperance Bay, fine but hazy weather, fresh west wind, one point rain fallen, and smooth sea. Barometer, 29·77 (a barometric depression evidently south of this colony), and temperature 64°.

South Australia.—Generally fine and cold, with fresh northerly winds, fallen barometers, and smooth sea. Squally at Eucla and Cape Borda, with rough sea at the latter place. No rain fallen. Extremes of barometers and temperature: On coast, 30·49 and 38°; Eucla, 30·06 and 56°. In Northern Territory—Daly Waters, 30·11 and 75°; Port Darwin, 29·94 and 76°.

Victoria.—Generally fine, with fallen barometers, light northerly winds, and smooth sea; misty, and heavy dew along the coast; foggy at Cape Schanck, and frosty inland. No rain fallen. Extremes of barometers and temperature: Melbourne, 30·59; Portland, 30·47; Omeo, 30°; and Cape Schanck, 54°.

Tasmania.—Generally fine, with fresh westerly winds, risen barometers, and smooth sea. Foggy at Hobart, and dead calm sea at Falmouth. Rainfall at Circular Heads, 0·02. Extremes of barometers and temperature: Low Heads, 30·54; Southport, 30·47 and 47°; and Falmouth 39°.

New Zealand.—On North Island fine, with N.W. and S.W. winds. At Middle Island, passing showers at Bluff and Hokitika, and strong S.W. wind. Barometers: Russell, 30·0; Wellington, 29·7; and Bluff, 29·7.

New South Wales.—Generally fine and cold, with high and steady barometers, light south to west winds and calms, and smooth sea. Fog and haze near the coast immediately north and south of Sydney; cloudy near the range about Mudgee and Murrurundi; heavy frost in south parts, and along the range, and raining on the Clarence River. Light rain fallen at a few stations in north coast districts. Extremes of barometers and temperature at 9 a.m.: Wollongong, 30·65, 50·11; Clarence, 56°; and Cooma, 17°. Extra station: Cassino, max. 71°, min. 48°; rainfall, 0·22, dull and threatening weather. For further particulars see map.

Queensland.—Generally fine, with S.E. and east winds, steady barometers, and rough sea. Rainfall: Cape Moreton, 0·11; Brisbane, 0·25; Cooktown, 0·36. Extremes of barometers and temperature: Brisbane, 30·43 and 58°; Townsville, 29·95, and Cooktown, 79°.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, calm, fine, clear, temperature 57°; Wentworth, N., 28, clear, fine, temperature 54°; Deniliquin, calm, fine, clear, temperature 59°; Moruya, N.N.E., 24, fine, sea smooth, temperature 60°; Cape St. George, S., 28, fine, sea smooth, temperature 58°; Sydney, S.S.E. 20, fine, sea smooth; Newcastle, S., 10, fine, sea smooth, temperature 63°; Port Macquarie, S., 14, cloudy, sea smooth, temperature 67°; Dubbo, S., fine, temperature 59°; Goulburn, calm, fine, temperature

STATE OF RIVERS.

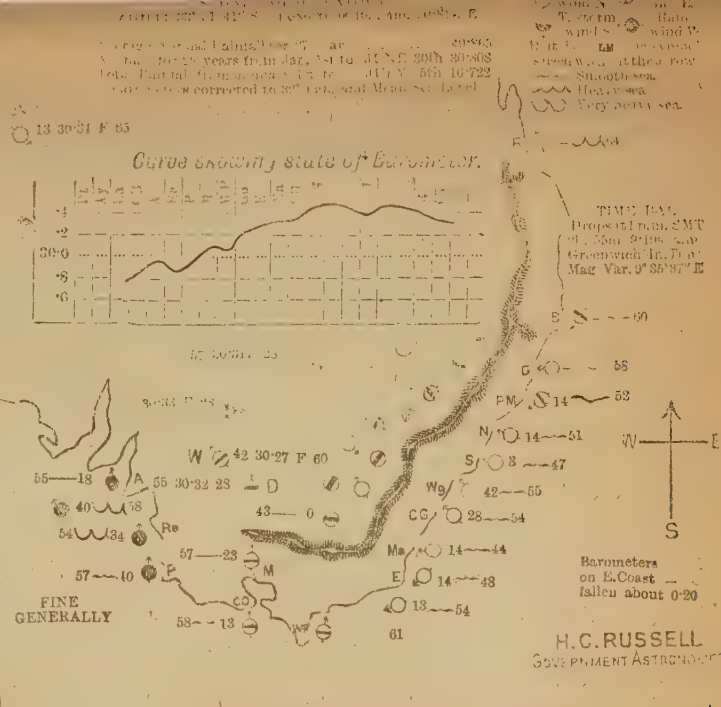
Barwon, 36 feet 6 inches above summer level; Bourke, 25 feet 6 inches above summer level; Godooga, 2 feet above summer level; Gundagai, below summer level; Gunbar, 11 inches above summer level; Mogil Mogil, over summer level; Narrandigdi, 27 feet 6 inches above summer level; Nyngan, 1 foot above summer level; Tilpa, 28 feet 6 inches above summer level. Murumbidgee: At Wagga, 11 inches above summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, 7 inches above summer level; at Euston, 1 foot 11 inches above summer level. Darling: At Wentworth, 3 inches above summer level; at Pooncarie, 4 feet 11 inches above summer level; at Menindie, 4 feet 5 inches above summer level; at Wilcannia, 24 feet 10 inches above summer level; at Bourke, 27 feet 10 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 5.

Sun rises at 7.7, sets at 5.2; Moon, 9.40 a.m., 8.38 p.m.; Mercury, 8.34 a.m., 6.39 p.m.; Venus, 4.19 a.m., 2.32 p.m.; Mars, 11.14 a.m., 11.19 p.m.; Jupiter, 11.7 a.m., 11.3 p.m.; Saturn, 7.3 a.m., 4.57 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 5: 10.41 a.m., 11.3 p.m.

Albury	u	60 38	0
Armidale	g	53 39	0
Balranald	g	74 45	0
Bathurst	g	61 26	0
Bend'm'r	g	56 35	0
Bodalla ..	b	– 27	0
Bourke ..	g	72 48	0
Bundarra	c	64 41	0
C'md'n H	g	64 50	0
C.St.Geo	b	65 56	0
Carcoar ..	u	51 33	0
Casino ..	u	65 54	0·15
Cassilis ..	o	56 34	0
Clarence	f	69 59	0·21
C'nd'b'lin	g	62 41	0
Cooma ..	c	61 31	0
Coonab'n	h	66 33	0
Cowra ..	b	60 28	0
Deniliq'n	g	67 31	0
Dubbo ..	g	67 37	0
Eden	b	56 43	0
Euston ..	b	73 37	0
Forbes ..	g	60 39	0
Gl'n Inn's	g	57 41	0
Goulburn	g	58 32	0
Grafton ..	c	75 52	0·05
Ea.		34—56	
Gulgong	g	60 39	0
Gunned'h	b	63 43	0
Hay	c	68 51	0
Inverell..	b	63 37	0
Kiandra	g	53 15	0
Lismore	r	67 55	0·10
Maitland	f	61 40	0
Marsdens	c	66 36	0
Menindie	g	69 54	0
Molong ..	u	64 39	0
M'r'ng'r'll	c	62 36	0
Moree ..	b	79 48	0
Moruya..	b	63 50	0
Moss Vale	u	52 37	0
Mt. Hope	u	59 48	0
M.Vict'ria	b	70 28	0
Mudgee..	g	63 40	0
M'rr'm'bh	b	63 40	0
M'rr'ndi	b	56 34	0
Mus'lbr'k	b	65 32	0
Narrabri	b	62 36	0
Newcastle	b	65 46	0
Orange ..	g	50 30	0
Picton ...	n	59 30	0
P. M'q'rie	g	67 46	0
P. St'ph'n	b	62 40	0
Q'nbeyan	n	51 31	0
Quirindi	o	65 40	0
Singleton	b	60 41	0
SYDNEY ..	b	61 46	0·01
Tamw'rth	u	66 37	0
Taralga ..	b	66 23	0
Taree	g	69 47	0
T'nt'rfield	g	58 39	0
Wagga ..	g	61 43	0
Walcha ..	g	77 27	0
Walgett..	b	65 48	0
Warrah ..	c	62 36	0
W'ntw'rth	c	72 55	0
Wilcannia	b	—·—	0
W'll'ng'ng	b	67 46	0
Young ..	u	76 33	0



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Western Australia.—No report.

South Australia.—Steady rain along the entire coast, with strong squally north winds, and rough sea. Barometric depression apparently south of this colony. Dust storm at Farina. Inland and in Northern Territory fine, with S.E. winds. Extremes of barometers and temperature: On coast, Eucla, 30·11; Cape Borda, 29·77 and 58°; and M'Donnell Bay, 53°. In Northern Territory—Daly Waters, 30·15 and 75°, and Port Darwin, 29·94 and 78°.

Victoria.—Generally cloudy and gloomy, with rain on S.W. coast, strong, squally north wind and moderate sea; fierce squalls at Wilson's Promontory; misty at Cape Otway. Extremes of barometers and temperature: Omeo, 30·20 and 49°; Portland, 29·89; Wilson's Promontory, 61° Temperature risen generally.

Tasmania.—Raining on north coast; cloudy and gloomy on east coast, with fresh N. to N.W. winds, and moderate sea. Fourteen points rain at Low Heads. Extremes of barometers and temperature: Low Heads, 30·03 and 54°; Falmouth, 29·82 and 59°.

New Zealand.—Generally fine, with light S. to W. winds. Barometers: Russell, 30·3; Wellington, 30.2; and Bluff, 30·1.

New South Wales.—Generally cloudy, gloomy, and threatening, with light W. to N. winds, fallen barometers, and smooth sea. In south parts near the coast fine. Temperature generally mild. Light rain fallen on the Clarence and Richmond River, and still raining at Lismore. Strong north winds in western parts of colony, caused by an approaching barometric depressions, which is at present in South Australia, and is accompanied by steady rain along the entire south coast. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·46; Moruya, 30·29; Wentworth, 60°; and Goulburn, 36.- For further particulars see map.

Queensland.—Generally fine, with light S. to E. winds, and steady barometers. Sea moderate to smooth and rough in north. Rainfall: Brisbane, 0·03; Rockhampton, 0·04; Cooktown, 0·10. Extremes of barometers and temperature: Brisbane, 30·44 and 60°; Townsville, 29·92; and Cooktown, 79°.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N., 18, cloudy and squally, temperature 61°; Cape Schanck, N.W., 34, light rain, sea high, temperature 56°; Wilson's Promontory, N.E., 23, threatening and squally, sea moderate, temperature 57°; Lakes Entrance, N., 8, gloomy, sea smooth, temperature 57°.

New South Wales.—Menindie, N., 42, overcast and stormy, temperature 63°; Wentworth, N.W., 14, overcast and cloudy, temperature 56°; Deniliquin, N., dull, like rain, temperature 60°; Eden, N.N.W., 14, like rain, sea smooth, temperature 58°; Moruya, N.W., 42, cloudy and gloomy, sea smooth, temperature 69°; Cape St. George, N., 42, dull, sea smooth, temperature 62°. Sydney, N, 10, fine but cloudy, sea smooth, temperature 64°; Newcastle, N.W., 14, fine, sea smooth, temperature 67°; Port Macquarie, N.N.E., 28, fine, sea smooth, temperature 67°; Clarence River, W., 14, fine, sea moderate, temperature 67°; Walgett, N.N.W., 11, fine, temperature 67°; Dubbo, N.W., 11, fine, temperature 60°; Goulburn, N.N.W., 14, dull, temperature 53°.

STATE OF RIVERS.

Barwon, 37 feet 6 inches above summer level; Brewarrina, 26 feet 6 inches above summer level; Godoova, 19 feet above summer level; Gundagai, below summer level; Louth, 25 feet 3 inches above summer level; Mogil Mogil, [illegible] Mungindi, 27 feet above summer level; Namoi, 12 [illegible] above summer level; Tilpa, 29 feet 3 inches above summer level. Murumbidgee: At Wagga, 10 inches above summer level; at Hay, summer level; at Balranald, [illegible] level. Murray: At Albury, 4 inches above summer level; at Euston, 1 foot 11 inches above summer level. Darling: At Wentworth, 4 feet 5 inches above summer level; at Menindie, 16 feet 1 inch above summer level; at Wilcannia, [illegible] feet 10 inches above summer level; at Wilcannia, [illegible] inches above summer level; at Bourke, 27 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 6.

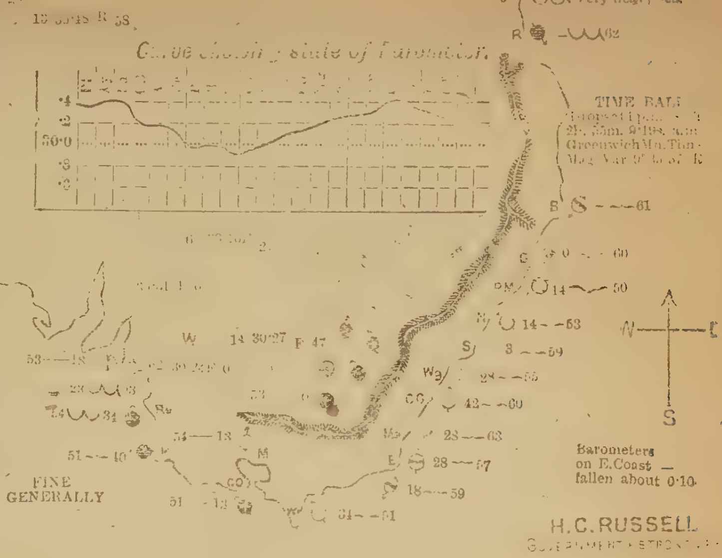
Sun rises at 7.7, sets at 5.2; Moon, 10.23 a.m., 9.45 p.m.; Mercury, 8.36 a.m., 6.43 p.m.; Venus, 4.21 a.m., 2.32 p.m.; Mars, 11.12 a.m., 11.18 p.m.; Jupiter, 11.3 a.m., 11 p.m.; Saturn, 6.59 a.m., 4.53 p.m. New Moon, 2nd; Full Moon, 18th; New Moon, 31st.

High water at Fort Denison, July 6: 11.25 a.m., 11.47 p.m.

Armidale	b	52	40	0
Balranald	b	68	42	0·53
Bathurst	g	57	23	0
Bend'm'r	b	59	39	0
Bodalla ..	g	—	35	0
Bourke ..	g	78	56	0
Bundarra	b	65	46	0
C'md n H	b	63	48	0
C.St.Geo	g	65	57	0
Carcoar ..	u	52	40	0
Casino ..	g	71	50	0·01
Cassilis ..	g	58	41	0
Clarence	r	69	58	0·04
C'nd'b'lin	g	67	51	0·19
Cooma ..	g	57	47	0·01
Coonab'n	c	65	39	0
Cowra ..	r	63	36	0·11
Deniliq'n	b	—	48	0·32
Dubbo ..	g	65	43	0
Eden	g	60	55	0
Euston ..	b	70	41	0·64
Forbes ..	r	59	38	0·15
Gl'n Inn's	b	60	40	0
Goulburn	g	58	37	0
Grafton ..	u	76	54	0
Gulgong	g	62	40	0
Gunned'h	b	60	44	0
Hay	c	61	41	0·40
Inverell ..	b	62	42	0
Kiandra	r	43	35	1·19
Lismore	c	74	58	0
Maitland	b	62	43	0
Marsdens	r	65	42	0·26
Menindie	b	69	56	0·63
Molong ..	c	59	41	0·43
M'r'ng'r'll	r	63	42	0
Moree ..	b	69	42	0
Moruya ..	u	70	43	0
Moss Vale	u	51	44	0
Mt. Hope	g	60	50	0
M.Vict'ria	c	55	34	0
Mudgee ..	b	65	35	0
M'rr'm'bh'	r	55	35	0·22
M'rr'r'ndi	b	58	43	0
Mus'lbr'k	b	71	38	0
Narrabri	b	69	42	0
Newcastle	b	70	49	0
Orange ..	c	53	33	0
Picton ..	g	64	33	0
P. M'q'rie	b	66	46	0·02
P. St'ph'n	b	59	38	0
Q'nbeyan	r	53	34	0·03
Quirindi	b	66	45	0
Singleton	f	50	41	0
SYDNEY ..	c	66	49	0
Tamw'rth	b	67	38	0
Taralga ..	g	69	35	0
Taree	b	69	44	0
T'nt'rfield	b	58	44	0
Wagga ..	r	59	49	0·35
Walcha ..	b	54	45	0
Walgett ..	c	68	53	0
Warrah ..	b	68	45	0·42
W'ntw'rth	b	66	44	0·44
Wilcannia	u	—	—	0
W'll'ng'ng	c	68	56	0
Young ..	r	73	41	0·32

LATITUDE 33° 51' 41" S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years ... 49·565
Average for 28 years from Jan 1st to 30th June ...
Total Rainfall from January 1st to JULY 6th 16·722
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W. r. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy, m, misty; p, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature ... the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland, M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On West Coast fine, with easterly winds; on south coast cloudy and gloomy, with rain at Esperance Bay. Barometer risen, and sea moderate. Extremes of barometer and temperature: Geraldton, 30·37; Cossack, 30·03; Carnarvon, 69·; and Perth, 46·. Rainfall: Albany, 0·01; Esperance Bay, 0·40.

South Australia.—Inland and in Northern Territory fine, with southerly winds; on and near coast cloudy, with showers in parts. Rain recorded south of Hergott, greatest over Mount Lofty ranges, from 1½ to 2 inches having fallen there; from 30 to 50 points elsewhere. Winds strong from N.W. to S.W., and the sea rough. Extremes of barometers and temperature: Eucla, 30·40 and 44·; Cape Borda, 30·17 and 53·

Victoria.—Generally cloudy and gloomy, with rain on S.W. coast,; strong W. and N.W. wind and moderate sea; rough sea at Cape Schanck; fierce squalls on coast. Rainfall: Generally from 3 to 51 points. Extremes of barometers and temperature: Hamilton, 30·12 and 48·; Wilson's Promontory, 29·90; and Cape Schanck, 58·

Tasmania.—Generally fine, with fresh N. to W. winds, fallen barometers, and moderate sea; showery and rough at Circular Head. Rainfall: Generally from 2 to 73 points; heaviest on N. coast. Extremes of barometers and temperature: Low Heads, 30·08 and 54·; Southport, 29·35; and Falmouth, 50·.

New Zealand.—Generally fine, with westerly winds. Barometers: Russell, 30·5; Wellington, 30·4; and Bluff, 30·1.

New South Wales.—Raining at 12 stations on the Murray, Murrumbidgee, and Lachlan rivers, near the range. Fine and clear in N.E. and S.W. parts. In the rest of the colony the weather is overcast and threatening. Barometers generally fallen, and temperature risen. Winds light, from N. to W., and sea smooth. Rain recorded in south parts, but generally light; Albury and Kiandra, however, had above an inch. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·41; Eden, 29·98; Bodalla and Moruya, 63·; and Urandra, 39·. Extra stations: Pooncarie, rainfall 0·51; Nowra, max. 66, min. 50, cloudy and threatening; Temora, 43 points rain, and still raining heavily. For further particulars see map.

Queensland.—Generally cloudy and gloomy, with southerly winds and rough sea; showery at Rockhampton. Rainfall: Brisbane, 0·02; Cape Moreton, 0·28; Rockhampton, 0·38; Cooktown, 0·16. Extremes of barometers and temperature: Brisbane, 30·35 and 61·; Townsville, 29·93; and Cooktown, 79·.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.S.W., 40, passing showers, sea smooth, temperature 52·; Cape Otway, 13, showery, squally, sea rough, temperature 49·; Melbourne, W., 13, cloudy and gloomy, temperature 51·; Cape Schanck, W., 23, squally and misty, sea rough, temperature 55·; Lakes Entrance, W., 13, cloudy, sea smooth, temperature 57·; Wilson's Promontory, W.N.W., 34, heavy rain and squally, sea rough, temperature 48·.

New South Wales.—Menindie, calm, fine, temperature 62·; Wentworth, S.W., 14, dull, temperature 57·; Deniliquin, S.W., 14, fine, temperature 63·; Eden, E., 14, fine, sea smooth, temperature 60·; Moruya, N.W., 28, gloomy, sea smooth, temperature 65·; Cape St. George, N.E., 42, dull, sea smooth, temperature 60·; Sydney, N.N.W., 12, overcast, sea smooth, temperature 61·; Newcastle, N.N.W., 14, cloudy, sea smooth, temperature 70·; Port Macquarie, N., 14, fine, sea smooth, temperature 69·; Dubbo, N.W., 14, raining, temperature 60·; Goulburn ... dull, temperature 57·.

STATE OF RIVERS.

Barwon, 38 feet 4 inches above summer level; Bourke ... feet 6 inches above summer level; Godooga, 10 feet 4 ... summer level; Gundagai, ... above summer level; ... 4 inches above summer level; Mungindi, ... gindi, 26 feet 10 inches above summer level; Narrabri, 12 feet 6 inches above summer level; Tilpa, 29 feet ... summer level. Murrumbidgee: At Wagga, 10 inches above summer level; at Hay, below summer level; at Balranald, summer level. Murray: At Albury, below summer level; at Euston, 1 foot 11 inches above summer level. Darling: At Wentworth, 5 feet 2 inches above summer level; at Pooncarie, 16 feet 3 inches above summer level; at Menindie, 19 feet 1 inch above summer level; at Wilcannia, 26 feet 2 inches above summer level; at Bourke, 27 feet above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 7.

Sun rises at 7.7, sets at 5.3; Moon, 11.3 a.m., 10.51 p.m.; Mercury, 8.37 a.m., 6.47 p.m.; Venus, 4.22 a.m., 2.32 p.m.; Mars, 11.9 a.m., 11.17 p.m.; Jupiter, 11 a.m., 10.56 p.m.; Saturn, 6.54 a.m., 4.48 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 7: — a.m., 12.10 p.m.

METEOROLOGICAL ABSTRACT, JUNE, 1886,

with results for the same month during the preceding 27 years.

—	Barometer at 32· Fah. and mn. sea lev'l.	Temperature in Shade. Mean Max.	Mean Min.	Mean.	Rainfall. Amount Inches.	No. of days.
1886: June ...	30·327	59·7	47·7	53·7	2·103	18
Average for 28 years ...	30·100	60·7	47·6	54·3	5·472	12
Monthly Extremes: Highest Year ...	30·324 1886	62·9 1873	52·6 1873	57·8 1873	16·296 1885	19 1863
Lowest Year ...	29·972 1878	57·7 1878	44·7 1859	51·3 1878	0·541 1877	4 1883

Wind.—Prevailing direction, W.; average prevailing direction for 28 years, W.; June, 1886, mean miles per hour, 6·9.

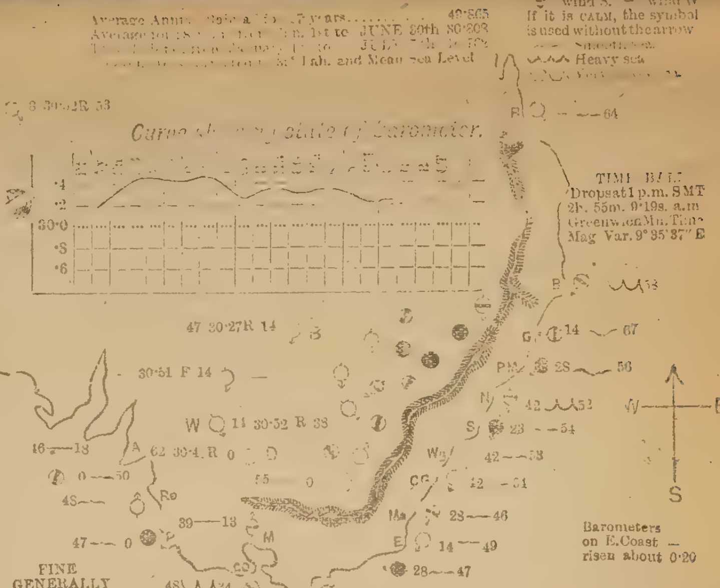
Temperature.—Highest shade temperature, 61·9, on the 11th; highest shade temperature in any June since 1859, 74·7, on the 24th, 1872; lowest shade temperature, 41·6, on the 31st.; lowest shade temperature in any June since 1859, 38·1, on the 29th 1862.

Rainfall.—Greatest fall in one day, 0·676, on the 15th; greatest fall in one day in any June since 1859, 5·170, on the 16th, 1884.

H. C. RUSSELL, Government Astronomer.

Sydney Observatory, July 6, 1886.

Armidale	r	58	41	0·33
Balranald	b	68	27	0·04
Bathurst	b	51	34	0·23
Bend'm'r	r	62	48	0·46
Bodalla ..	g	—	33	0
Bourke ..	b	62	44	0·39
Bundarra	r	63	51	0·75
C'md'n H	r	71	51	0
C.St.Geo	b	65	56	0
Carcoar ..	b	50	35	0·51
Casino ..	u	[illegible]	[illegible]	[illegible]
Cassilis ..	c	[illegible]	[illegible]	[illegible]
Clarence	g	70	58	0
C'nd'b'lin	g	60	41	0·19
Cooma ..	u	60	27	0·04
Coonab'n	b	60	46	0·82
Cowra ..	f	58	37	0·53
Deniliq'n	b	63	31	0
Dubbo ..	h	59	36	0·33
Eden	b	61	41	0·05
Euston ..	b	64	30	0
Forbes ..	b	61	41	0·43
Gl'n Inn's	r	63	42	0.20
Goulburn	g	56	29	0·03
Grafton ..	o	78	53	0
Gu Ea.				
G'lgong	b	69	43	0·25
unned'h	o	62	49	0
Hay	b	62	36	0·50
Inverell ..	r	65	48	0·55
Kiandra	c	42	27	0·35
Lismore	c	76	53	0
Maitland	g	64	40	0·23
Marsdens	b	61	44	0·27
Menindie	b	64	45	0
Molong ..	g	59	36	0·53
M'r'ng'r'll	b	60	38	0·35
Moree ..	u	74	52	0·41
Moruya ..	c	69	42	0
Moss Vale	u	55	39	0·03
Mt. Hope	b	—	—	0·50
M.Vict'ria	c	54	37	0·05
Mudgee ..	b	57	35	0·74
M'rr'm'bh	r	55	37	0·49
M'rr'r'ndi	c	61	46	0·33
Mus'lb'r'k	g	72	46	0·34
Narrabri	r	71	47	0·74
Newcastle	u	63	52	0·30
Orange ..	b	50	34	0·81
Picton ..	g	62	42	0
P. M'q'rie	r	69	49	0
P. St'ph'n	g	63	46	0·26
Q'nbeyan	g	54	35	0·04
Quirindi	c	66	45	0·43
Singleton	u	50	41	0·34
SYDNEY ..	o	64	52	0·04
Tamw'rth	r	66	37	0·58
Taralga ..	g	70	28	0
Taree	r	71	46	0·22
T'nt'rfield	g	66	44	0
Wagga ..	b	61	40	0·04
Walcha ..	r	60	38	0·16
Walgett ..	b	68	50	0·71
Warrah ..	g	69	45	0
W'ntw'rth	b	62	36	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	66	53	0
Young ..	u	57	35	0·57



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, [illegible]; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column . M'x gives the maximum temperature for previous 24 hours. [illegible] the corresponding minimum temperature [illegible] the rain for the previous 24 hours. The symbols used in the map are explained in the margin. At each coast station the wind symbol is placed [illegible] the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are [illegible] figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ms, Moruya; CJ, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast fine, with S.E. winds. On south coast cloudy and calm. Sea smooth, and no rain fallen. Extremes of barometers and temperature: Geraldton, 30·25; Cossack, 30·07; Carnarvon, 68·; and Esperance Bay, 45·.

South Australia.—Generally fine and cold. On coast scattered clouds in places, and misty rain at M'Donnell Bay. Barometers risen and sea moderate. Rainfall: Port Lincoln, 0·01; Adelaide, 0·01; Cape Borda, 0·01; M'Donnell Bay, 0·08; and Robe, 0·06. In Northern Territory, fine, with S.E. winds and calms. Extremes of barometers and temperature: On coast—M'Donnell Bay, 30·45 and 44·; Eucla, 30·32 and 52·. In Northern Territory, Daly Waters, 30·17 and 72·; Port Darwin, 29·98 and 77·.

Victoria.—Generally unsettled, with clouds and passing showers in places on coast; fresh westerly winds and moderate sea; misty and rough sea at Cape Otway, foggy at Melbourne, and frosty inland. Rainfall: Portland, 0·08; Cape [illegible] Promontory, 0·10, and several stations inland from 6 to 12 points. Extremes of barometers and temperature: Ballarat, 30·49 and 35·; Wilson's Promontory, 30·36; and Cape Schanck, 52·.

Tasmania.—Generally fine, with fresh westerly winds and moderate sea; foggy at Low Head. Rainfall: Generally along N. and W. coasts from 3 to 40 points. Extremes of barometers and temperature: Low Heads, 30·39 and 38·; Southport, 30·29 and 42·.

New Zealand.—Generally fine, with variable winds. Barometers: Russell, 30·5; Wellington, 30·4; and Bluff, 30·1.

New South Wales.—Raining steadily at 13 stations on both sides of the range, in the districts around Tamworth, Glen Innes, and Port Macquarie; showery at Sydney and Gabo Island. In coast districts cloudy and threatening rain. In the rest of the colony fine and clear, with frost, fog, and haze in places. Light rain recorded generally in the eastern and central territorial divisions of the colony, principally in north parts, but heaviest along the western slope of the range around Young, Mudgee, Inverell, and Coonamble; 15 stations in those districts report above half inch rain each. Newcastle reports stormy weather and [illegible] sea; Kiandra one-quarter inch snow. Winds blow fresh [illegible] W. and S. Barometers have risen, temperature fallen, and [illegible] moderate. Extra stations: Rainfall—Coonamble, 0·70; [illegible] 0.13, max. 67·, min. 44·, and clearing up; [illegible] min. 44.; strong N.E. wind. For [illegible] southerly winds and [illegible] Moreton. Rainfall: Cooktown, 0·35; Rockhampton, 0·10; Brisbane, 0·07; and Cape Moreton, 0·09; Cooktown reports squally S.E. wind and rough sea. Extremes of barometers and temperature: Rockhampton, 30·21; Brisbane, 58·; Townsville, 29·96; Cooktown, 78·.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E., 8, cloudy, sea smooth, temperature 53·; Cape Otway, S.W., 8, cloudy and misty, sea rough, temperature 53·; Melbourne, S.W., 13, fine, temperature 50·; Cape Schanck, S.W., 8, misty and cloudy, sea moderate, temperature 54·; Wilson's Promontory, S.W., 3, fine and cloudy, sea smooth, temperature 52·; Lakes Entrance, W., 13, cloudy, sea moderate, temperature 53·.

New South Wales.—Menindie, S., 14, fine and clear, temperature 55·; Wentworth, S., 14, fine and clear, temperature 51·; Deniliquin, [illegible] Moruya, S., [illegible] fine, sea smooth, temperature 54·; Cape St. George, S., 56, fine, rising, temperature 55·; Sydney, S.S.E., 20, overcast and gloomy, sea moderate, temperature [illegible]; Newcastle, S., 28, stormy, sea heavy, temperature 52·; Port Macquarie, W.S.W., 14, dull, sea smooth, temperature 61·; Clarence River, S., 14, dull, sea smooth, temperature 56·; Dubbo, calm, fine, temperature 59·; Goulburn, S.E., 14, fine, temperature [illegible].

STATE OF RIVERS.

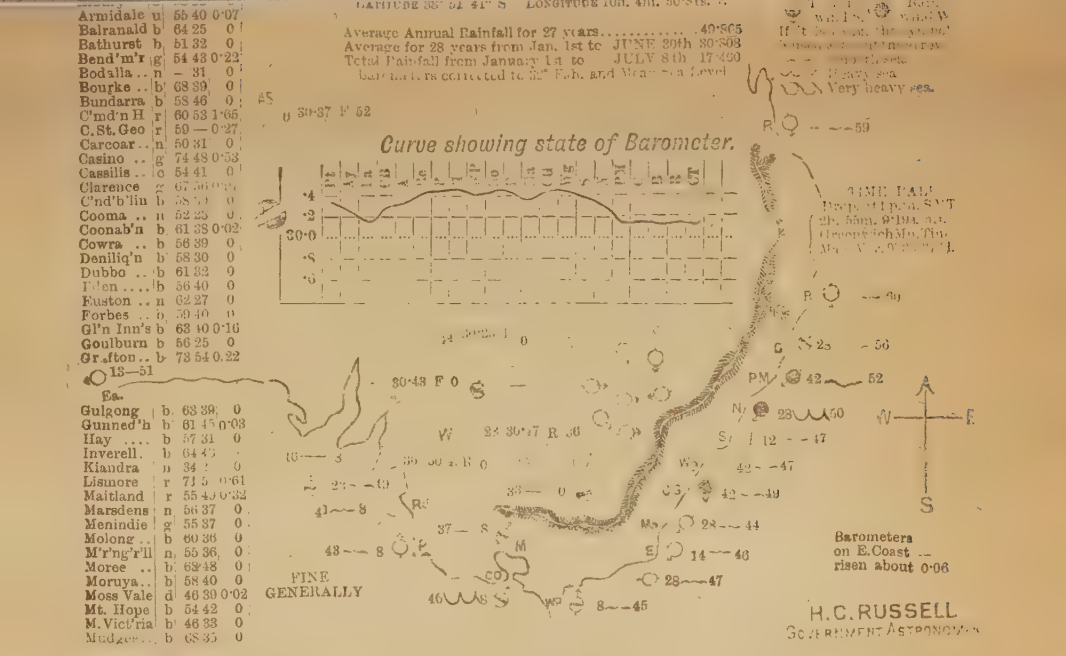
Barwon, 39 feet above summer level; Brewarrina, 28 feet 3 inches above summer level; Gundooga, 10 feet 5 inches above summer level; Gundagai, below summer level; Louth, 25 feet 6 inches above summer level; Mogil Mogil, over banks; Mungindi, 26 feet above summer level; Narrabri, 11 feet above summer level; Tilpa, 29 feet 10 inches above summer level. Murrumbidgee: At Wagga, 10 inches above summer level; at Hay, below summer level; at Balranald, summer level. Murray: At Albury, 6 inches above summer level; at Euston, 1 foot 11 inches above summer level. Darling: At Wentworth, 5 feet 6 inches above summer level; at Pooncarie, 16 feet 10 inches above summer level; at Menindie, 19 feet 3 inches above summer level; at Wilcannia, 26 feet 6 inches above summer level; at Bourke, 26 feet 8 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 8.

Sun rises at 7.6, sets at 5.3; Moon, 11.43 a.m., 11.53 p.m.; Mercury, 8.37 a.m., 6.50 p.m.; Venus, 4.23 a.m., 2.33 p.m.; Mars, 11.5 a.m., 11.16 p.m.; Jupiter, 10·57 a.m., 10.53 p.m.; Saturn, 6.50 a.m., 4.45 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 3: 12.32 a.m., 12.57 p.m.

Armidale	u	55	40	0·07
Balranald	b	64	25	0
Bathurst	b	51	32	0
Bend'm'r	g	54	43	0·22
Bodalla ..	n	—	31	0
Bourke ..	b	68	39	0
Bundarra	b	58	46	0
C'md'n H	r	60	53	1·65
C. St. Geo	r	59	—	0·27
Carcoar ..	n	50	31	0
Casino ..	g	74	48	0·53
Cassilis ..	o	54	41	0
Clarence	g	67	36	0·56
C'nd'b'lin	b	58	51	0
Cooma ..	n	52	25	0
Coonab'n	b	61	38	0·02
Cowra ..	b	56	39	0
Deniliq'n	b	58	30	0
Dubbo ..	b	61	32	0
Eden	b	56	40	0
Euston ..	n	62	27	0
Forbes ..	o	59	40	0
Gl'n Inn's	b	63	40	0·16
Goulburn	b	56	25	0
Grafton ..	b	73	54	0.22
Ea.				
Gulgong	b	63	39	0
Gunned'h	b	61	45	0·03
Hay	b	57	31	0
Inverell.	b	64	45	—
Kiandra	n	34	2	0
Lismore	r	71	5	0·61
Maitland	r	55	49	0·32
Marsdens	n	56	37	0
Menindie	g	55	37	0
Molong ..	b	60	36	0
M'r'ng'r'll	n	55	36	0
Moree ..	b	63	48	0
Moruya ..	b	58	40	0
Moss Vale	d	46	39	0·02
Mt. Hope	b	54	42	0
M. Victoria	b	46	33	0
Mudgee ..	b	68	35	0
M'r'm'bh	b	53	34	0
M'r'r'ndi	u	53	43	0·15
Mus'll'br'k	g	62	40	0·15
Narrabri	b	64	38	0·20
Newcastle	r	58	49	1·24
Orange ..	b	50	30	0
Picton ..	c	56	41	0
P. M'q'rie	r	59	50	1·53
P. St'ph'n	r	55	46	3·25
Q'nbeyan	b	44	35	0
Quirindi	o	58	41	0·02
Singleton	b	51	—	0·24
Sydney ..	g	55	46	0·70
Tamw'rth	b	57	40	0·09
Taralga ..	g	52	30	0
Taree ..	o	59	52	0·49
Tnt'nfield	b	57	48	0·52
Wagga ..	b	56	36	0
Walcha ..	o	59	37	0·26
Walgett ..	b	59	43	0
Warrah ..	b	56	40	0
W'ntw'rth	g	62	33	0
Wilcannia	o	—	—	0
W'll'ng'ng	b	60	48	0·02
Young ..	n	64	34	0



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed with the shaft pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C Gervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light variable winds, almost steady barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: Perth, 30·35 and 43°; Cossack, 29·99 and 72°.

South Australia.—On south coast cloudy, gloomy, and cold, with light E. to N. winds, fallen barometers, and moderate sea. Raining at Fowler's Bay. In Northern Territory, fine, with S.E. winds. Extremes of barometers and temperature: On coast—M'Donnell Bay, 30·39 and 41°; Eucla, 30·05 and 51°. In Northern Territory—Daly Waters, 30·12 and 69°; Port Darwin, 29·95 and 76°.

Victoria.—Generally fine, but cloudy and cold, with light north to east winds and moderate sea. Rough sea, foggy, and misty at Cape Otway. Frosty, ice on water, heavy dew, and fog at Melbourne. Frosty inland. Portland, three points of rain. Extremes of barometers and temperature: Melbourne, 30·16; Omeo, 30·36 and 34°; and Horsham, 51°.

Tasmania.—On north coast, cloudy, with S. and E. winds, on west coast, fine, with N. and W. winds; sea smooth, heavy dew at Low Heads, but no rain fallen. Frosty at Southport. Extremes of barometers and temperature: Low Heads, 30·49 and 36°; Southport, 30·39; and Circular Heads, 45°.

New Zealand.—Generally fine, with W. to S. winds. Barometers: Russell, 30·5; Wellington and Bluff, 30·4.

New South Wales.—Generally fine and cold, with fresh southerly winds, risen barometers, and moderate sea; rough sea at Newcastle and Camden Haven; cloudy in north coast districts, frosty in south parts, and showery along the coast; light rain recorded along northern parts of the range, principally on the western slope; heavy rain recorded on the coast north of Sydney, five stations having from ¾ to 1¾ inch, and one, Port Stephens, 3¼ inches. Extremes of barometers and temperature at 9 a.m.: Wentworth 30·47, Port Macquarie 30·15, Clarence 56°, and 28° at Cooma. Extra Stations: Nowra, max. 54°, min. 42°, rainfall 0·11; Lawrence, July 4, rainfall 0·30, 5th 0·11; to-day 0·58. (For further particulars see map.)

Queensland.—Generally fine, with southerly winds, fallen barometers, and moderate sea; rough sea off Cape Moreton; Rainfall: Brisbane 0·16, Cape Moreton 0·14; Rockhampton 0·5. Extremes of barometers and temperature: Rockhampton 30·15 and 59°, Townsville 29·79, and Cooktown 78°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, NE., 42, fine, sea smooth; temperature 52°; Cape Otway, E., 8, fine, sea moderate, temperature 51°; Melbourne, S.S.W., 8, fine, temperature 48°; Cape Schanck, S., 14, fine and hazy, sea smooth, temperature 52°; Wilson's Promontory, N.E., 4, fine but cloudy, sea smooth, temperature 53°; Lakes Entrance, E., 18, fine but cloudy, sea smooth, temperature 54°.

New South Wales.—Menindie, calm, cloudy and dull, temperature 54°; Wentworth, E., 14, cloudy and dull, temperature 47°; Deniliquin, calm, fine and clear, temperature 58°; Eden, S.W., 14, fine, light E. sea, temperature 54°; Moruya, S.S.W., 42, fine, sea smooth, temperature 54°; Cape St. George, S., 28, raining, sea moderate, temperature 55°; Sydney, S.S.W., 16, spitting rain, sea moderate, temperature 51°; Newcastle, S.S.W., 28, strong wind, stormy, sea heavy, temperature 58°; Port Macquarie, S.S.W., 42, stormy, sea rising, temperature 58°; Clarence River, S., 42, cloudy, sea moderate, temperature 61°; Walgett, S.E., fine, temperature 59°; Dubbo, S.E., fine, temperature 55°; Goulburn, E., 14, dull, temperature 53°.

STATE OF RIVERS.

Barwon, 39 feet 6 inches above summer level; Brewarrina, 29 feet above summer level; Gundagai, below summer level; Louth, 25 feet 7 inches above summer level; Mogil Mogil, over banks; Mungindi, 25 feet 9 inches above summer level; Namoi, 9 feet 4 inches above summer level; Tilpa, 30 feet above summer level. Murrumbidgee: At Wagga, 10 inches above summer level; at Hay, summer level; at Balranald, 6 inches above summer level. Murray: At Albury, 1 foot above summer level; at Euston, 1 foot 10 inches above summer level. Darling: At Wentworth, 5 feet 11 inches above summer level; at Pooncarie, 17 feet 1 inch above summer level; at Menindie, 19 feet 5 inches above summer level; at Wilcannia, 27 feet above summer level; at Bourke, 26 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 9.

Sun rises at 7.6, sets at 5.4; Moon, 12.21 p.m.; Mercury, 8.37 a.m., 6.53 p.m.; Venus, 4.23 a.m., 2.33 p.m.; Mars, 11.4 a.m., 11.14 p.m.; Jupiter, 10·54 a.m., 10.50 p.m.; Saturn, 6.47 a.m., 4.42 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 9: 1.22 a.m., 1.53 p.m.

Armidale	n	50 39	0
Balranald	g	61 28	0
Bathurst	b	52 37	0
Bend'm'r	n	56 32	0
Bodalla ..	b	— 33	0
Bourke ..	c	63 44	0
Bundarra	b	66 42	0
C'md'n H	b	60 53	0·10
C. St. Geo	b	57 —	0·79
Carcoar ..	n	48 29	0
Casino ..	u	66 51	0
Cassilis ..	o	57 43	0
Clarence	o	64 54	0
C'nd'b'lin	g	56 40	0
Cooma ..	n	54 29	0
Coonab'n	n	59 27	0
Cowra ..	n	57 37	0
Deniliq'n	b	62 30	0
Dubbo ..	b	60 31	0·02
Eden	b	56 42	0
Euston ..	g	62 32	0
Forbes ..	b	65 30	0
Gl'n Inn's	b	52 36	0
Goulburn	b	47 25	0
Gr.fton ..	b	70 48	0
Ea.			
Gulgong	b	62 40	0
Gunned'h	b	59 42	0
Hay	c	57 35	0
Inverell ..	b	60 40	0
Kiandra	n	36 22	0
Lismore	g	63 57	0
Maitland	g	53 48	0
Marsdens	u	57 38	0
Menindie	g	52 38	0
Molong ..	n	61 31	0
M'r'ng'r'll	b	56 35	0
Moree	b	73 43	0
Moruya ..	b	57 42	0·01
Moss Vale	b	44 36	0·32
Mt. Hope	g	52 41	0
M. Vict'ria	g	46 35	0
Mudgee ..	g	62 28	0
M'rr'm'bh	b	60 31	0
M'rr'ndi	c	56 43	0
Mus'br'k	g	58 42	0
Narrabri	b	65 38	0
Newcastle	g	57 48	0·07
Orange ..	g	48 32	0
Picton ..	b	54 42	0·01
P. M'q'rie	b	58 46	0·14
P. St'ph'n	r	58 34	0·30
Q'nbeyan	n	49 32	0
Quirindi	n	65 37	0
Singleton	g	52 46	0
SYDNEY ..		54 47	0·29
Tamw'rth	b	58 33	0
Taralga ..	b	60 34	0
Taree	b	60 49	0·01
T'nt'rfield	b	57 37	0
Wagga ..	b	56 35	0
Walcha ..	n	48 28	0
Walgett ..	c	60 41	0
Warrah ..	b	59 41	0
W'ntw'rth	g	57 35	0
Wilcannia	c	— —	0
Will'ng'ng	b	58 48	0·07
Young ..	n	66 35	0

Average Annual Rainfall for 57 years ... 40·03
Average for 28 years from Jan. 1st to JUNE 30th 30·68
Total Rainfall from January 1st to JULY 9th 17·50
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.

TIME BALL.
Dropped 1 p.m. S.M.T.
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35' 37" E.

FINE GENERALLY

Barometers on E. Coast — fallen about 0·20

H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; n, misty; o, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W'l, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast fine, with light E. winds and moderate sea; on south coast gloomy, with light misty rain at Esperance Bay, light E. to N. winds, and rough sea. Rainfall: Albany, 0·05; Esperance Bay, 0·21. Extremes of barometers and temperature: Perth, 30·43 and 41°; Cossack, 29·97 and 72°.

South Australia.—Generally cloudy, gloomy, and cold south of Strangways Springs, but scattered on coast, with light N. to N.E. winds and calms, fallen barometers, and moderate sea. Misty rain at Farina, and 2 points fallen, 8 points at Streaky Bay and Eucla. Extremes of barometers and temperature: M'Donnell Bay, 30·18 and 38°; Cape Borda, 30·14; and Eucla, 58°. No reports from stations north of Farina.

Victoria.—Generally fine and cold, with light N. to east winds and moderate sea. Foggy at Capes Otway and Schanck and at Ballarat. Frosty inland. Ice and frost at Melbourne. One point of rain at Wilson's Promontory. Extremes of barometers and temperature: Omeo, 30·30 and 31°; Wilson's Promontory, 0·16; and Horsham, 52°.

Tasmania.—Generally fine, with westerly winds and calm and moderate sea. Rough sea off Falmouth, and one point rain fallen. Extremes of barometers and temperature: Low Heads, 30·28; and Falmouth, 49°.

New Zealand.—Generally fine and calm. Barometers generally 30·5.

New South Wales.—Near the coast range fine and clear, except in the districts along the Hunter River and around Mudgee and Orange, where it is gloomy and threatening. In west parts threatening rain. Severe frost along the range, as far north as Armidale. Light rain has fallen along the coast from Gabo Island in south, to Port Macquarie in north. The heaviest fall occurred at Cape St. George, where ½-inch fell. At 9 a.m. it was still raining at Port Stephens and Gabo Island. Along the coast fresh southerly winds; inland light variable winds and calms. The sea is generally moderate, but heavy at Cape St. George, Camden Haven, and Port Stephens. Extremes of barometers and temperature at 9 a.m.: Deniliquin, 30·34; Forbes, 29·93; Clarence and Port Macquarie, 53°; and Kiandra, 26°. (For further particulars see map.)

Queensland.—Generally fine, with N.W. to S.W. winds in south parts, and S.E. wind and calm in north. Sea moderate; and no rain fallen. Extremes of barometers and temperature: Rockhampton, 30·11 and 56°; Townsville, 29·71; and Cooktown 74°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 8, fine but cloudy, sea smooth, temperature 52°; Melbourne, W., 8, cloudy and hazy, temperature 50°; Cape Schanck, W., 8, cloudy and misty, sea smooth, temperature, 54°; Wilson's Promontory, N.E., 8, fine, sea smooth, temperature 55°; Lakes Entrance, N.E., 13, cloudy and gloomy, sea smooth, temperature 52°.

New South Wales.—Menindie, calm, dull and cloudy, temperature 55°; Wentworth, S., 14, dull and cold, temperature 48°; Deniliquin, calm, cloudy and dull, temperature 50°; Moruya, S.S.E., 28, fine, sea rough, temperature 55°; Cape St. George, S., 42, fine, sea moderate, temperature 58°; Sydney, S., 14, fine but cloudy, sea moderate, temperature 55°; Newcastle, S.W., 22, dull, sea moderate, temperature 57°; Port Macquarie, S.S.W., 42, cloudy, sea smooth, temperature 64.; Clarence River, S. 14, fine, sea moderate, temperature 63°; Walgett, calm, cloudy and cold, temperature 58°; Dubbo, S.E., 14, fine, temperature 54°; Goulburn, calm, fine, temperature 52°.

STATE OF RIVERS.

Barwon, 40 feet above summer level; Brewarrina, 31 feet above summer level; Godooga, 10 feet 3 inches above summer level; Gundagai, below summer level; Louth, 25 feet 6 inches above summer level; Mogil Mogil, over banks; Mungindi, 25 feet above summer level: Namoi, 8 feet 2 inches above summer level; Tilpa, 30 feet 3 inches above summer level. Murrumbidgee: At Wagga, 10 inches above summer level; at Hay summer level; at Balranald, 6 inches above summer level. Murray. At Albury, 1 foot 3 inches above summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth 6 feet 2 inches above summer level; at Pooncarie, 17 feet 3 inches above summer level: at Menindie, 19 feet 6 inches above summer level; at Wilcannia, 27 feet 4 inches above summer level; at Bourke, 27 feet 2 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 10.

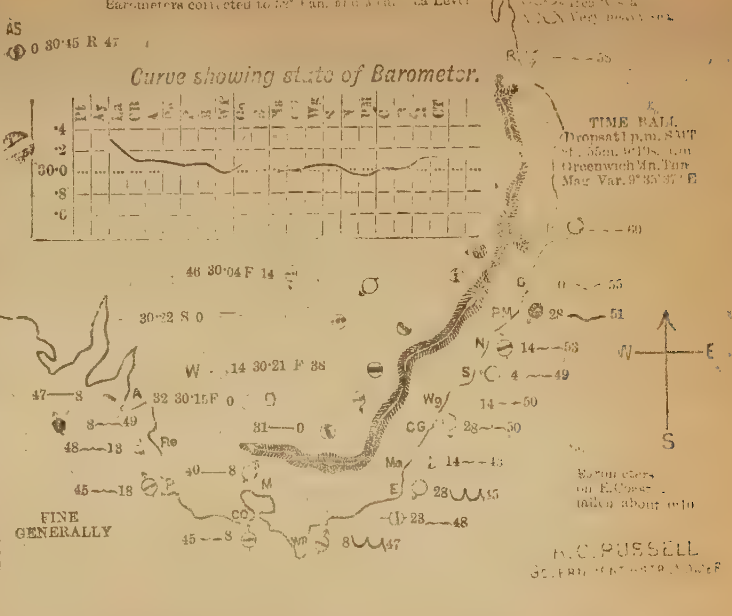
Sun rises at 7.6, sets at 5.4; Moon, 12.59 p.m. sets at 12.56 a.m.; Mercury, 8.37 a.m., 6.56 p.m.; Venus, 4.26 a.m., 2.34 p.m.; Mars, 11.1 a.m., 11.13 p.m.; Jupiter, 10.50 a.m., 10.47 p.m.; Saturn, 6.43 a.m., 4.39 p.m. New Moon, 2nd: Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 10: 2.23 a.m., 2.59 p.m.

Armidale	b	54	36	0·13
Balranald	n	61	27	0
Bathurst	b	53	37	0
Bend'm'r	b	57	43	0·07
Bodalla ..	g	—	31	0
Bourke ..	b	60	41	0
Bundarra	f	65	42	0·13
C'md'n H	c	63	55	0
C. St. Geo	b	57	51	0
Carcoar ..	n	47	31	0
Casino ..	b	66	46	0
Cassilis ..	c	52	45	0
Clarence	b	65	55	0
C'nd'b'lin	b	56	38	0
Cooma ..	n	54	21	0
Coonab'n	b	60	33	0
Cowra ..	n	56	33	0
Deniliq'n	b	55	28	0
Dubbo ..	f	[illegible]	[illegible]	0
Eden	b	57	42	0
Euston ..	n	[illegible]	24	0
Forbes ..	b	[illegible]	37	0
Gl'n Inn's	b	50	38	0·15
Goulburn	b	53	28	0
Grafton ..	f	76	51	0
Gulgong	c	64	45	0
Gunned'h	b	59	44	0·10
Hay	o	56	32	0
Inverell ..	u	60	43	0·16
Kiandra	n	37	15	0
Lismore	b	64	51	0
Maitland	g	59	49	0
Marsdens	n	54	39	0
Menindie	n	52	40	0
Molong ..	n	53	35	0
M'r'ng'r'll	—	53	36	0
Moree ..	b	74	47	0·20
Moruya ..	g	60	41	0
Moss Vale	b	47	36	0
Mt. Hope	b	56	43	0
M. Vict'ria	b	46	37	0
Mudgee ..	g	58	34	0
M'rr'm'bh	b	54	32	0
M'rr'r'ndi	c	53	42	0
Mus'lbr'k	b	65	43	0
Narrabri	g	62	39	0·03
Newcastle	g	60	51	0
Orange ..	n	49	34	0
Picton ..	c	59	40	0
P. M'q'rie	r	63	49	0·02
P. St'ph'n	g	57	46	0·05
Q'nbeyan	g	48	34	0
Quirindi	o	64	38	0
Singleton	u	51	50	0
SYDNEY ..	h	57	48	0
Tamw'rth	b	60	33	0·09
Taralga ..	b	54	32	0
Taree	g	60	50	0
T'nt'rfield	r	62	42	0·02
Wagga ..	f	52	24	0
Walcha ..	u	55	31	0·14
Walgett ..	b	59	42	0
Warrah ..	b	62	39	0
W'ntw'rth	b	53	35	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	63	50	0
Young ..	b	64	37	0

LATITUDE 33° 51' 41" S LONGITUDE ...

Average Annual Rainfall for 27 years 65
Average for 28 years from Jan. 1st to JUNE 30th 30·08
Total Rainfall from January 1st to JULY 10th 17·51
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy, m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r n. the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt. Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—No reports.

South Australia.—Generally cloudy and cold south of Hawker, gloomy in places near coast, and light rain falling at Eucla, Streaky Bay, and Cape Borda. Winds light from N.E. to N.W., barometers fallen, and sea smooth. Rainfall: Eucla, 0·26; Port Lincoln, 0·07; Wallaroo, 0·06; Cape Borda, 0·07. Extremes of barometers and temperature: On coast—Eucla, 30·30 and 51°; M'Donnell Bay, 30·02 and 39°. No reports from Northern Territory.

Victoria.—Generally fine and cold. Cloudy and misty along the coast. Frosty inland. Dense fog at Omeo. Rough sea at Wilson's Promontory. No rain fallen. Extremes of barometers and temperature: Ballarat, 30·11; Wilson's Promontory, 29·95; Horsham, 50°; and Omeo, 30°.

Tasmania. Generally fine but cloudy, with light southerly winds and calm and moderate sea. Extremes of barometers and temperature: Circular Heads, 30·01; Low Heads, 42° and foggy; Southport, 29·88 and 40°.

New Zealand.—Generally fine, with S.E. wind in north and W. and N.W. winds in south parts. Barometers: Russell and Wellington, 30·3; Bluff, 30·2.

New South Wales.—Generally fine, clear, and cold, with light W. and S. winds, fallen barometers, and moderate sea; heavy sea off Eden; cloudy and gloomy along the Manning, Hunter, and Namoi rivers; dense fog in places along the range; severe frost in south parts; light rain fallen in New England district and at a few stations in north coast districts (heaviest at Moree, where 20 points fell), and at 9 a.m. it was still raining at Tenterfield and Port Macquarie. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·22; Port Macquarie, 29·91; Clarence, 55°; and Cooma, 24°. Extra station: Nowra, max. 54°, min. 38°, hazy, rainfall 0·19. (For further particulars see map.)

Queensland.—Generally fine, with S. to W. winds, and calm; sea moderate; no rain fallen, but foggy at Rockhampton. Extremes of barometers and temperature: Rockhampton, 30·09 and 58°; Townsville, 29·84; and Cooktown 80°.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, calm, fine, temperature 55°; Wentworth, S.W., 28, fine, temperature 52°; Deniliquin, calm, fine, temperature 58°; Eden, S.W., 14, fine, heavy easterly sea, temperature 56°; Moruya, S.E., 14, fine, sea moderate, temperature 57°; Cape St. George, S., 28, fine, sea smooth, temperature 58°; Sydney, S., 10, fine, temperature 55°; Newcastle, S., 10, fine, sea moderate, temperature 58°; Port Macquarie, S.W., 47, fine, clear, sea moderate, temperature 62; Dubbo, S., 14, fine, temperature 60°; Goulburn, calm, fine, temperature 53°; Brewarrina, S.E., fine, temperature 59°.

STATE OF RIVERS.

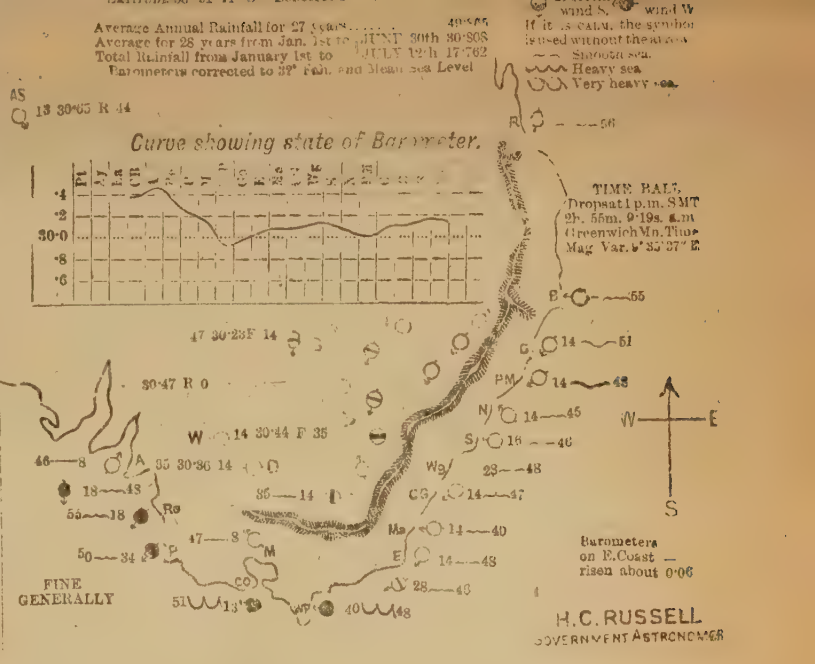
Barwon, 39 feet 9 inches above summer level; Brewarrina, 32 feet above summer level; Godooga, 9 feet 8 inches above summer level; Gundagai, below summer level; Louth, 25 feet 6 inches above summer level; Mogil Mogil, over banks; Mungindi, 25 feet above summer level; Namoi, 7 feet above summer level; Tilpa, 30 feet 4 inches above summer level. Murrumbidgee: At Wagga, 10 inches above summer level; at Hay, below summer level; at Balranald, 5 inches above summer level. Murray: At Albury, 2 feet 6 inches above summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 6 feet 3 inches above summer level; at Pooncarie, 17 feet 6 inches above summer level; at Menindie, 19 feet 7 inches above summer level; at Wilcannia, 27 feet 6 inches above summer level; at Bourke, 27 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 12.

Sun rises at 7.5, sets at 5.5; Moon, 2.22 p.m., 2.55 a.m.; Mercury, 8.36 a.m., 7.3 p.m.; Venus, 4.29 a.m., 2.35 p.m.; Mars, 10.50 a.m., 11.10 p.m.; Jupiter, 10.45 a.m., 10.41 p.m.; Saturn, 6.36 a.m., 4.32 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 12: 4.49 a.m., 5.23 p.m.

Armidale	b	54 36	0	
Balranald	b	64 25	0	
Bathurst	b	55 25	0	
Bend'm'r	g	53 33	0·03	
Bodalla ..	n	— 26	0	
Bourke ..	g	64 44	0·08	
Bundarra	c	55 33	0	
C'md'n H	b	63 43	0	
C.St.Geo	b	62 —	0	
Carcoar ..	g	49 31	0	
Casino ..	b	70 35	0	
Cassilis ..	b	51 36	0	
Clarence	b	70 50	0	
C'nd'b'lin	b	58 36	0·02	
Cooma ..	n	59 19	0	
Coonab'n	b	57 29	0	
Cowra ..	n	57 33	0	
Deniliq'n	b	60 30	0	
Dubbo ..	b	55 28	0	
Eden	b	56 43	0	
Euston ..	n	68 26	0	
Forbes ..	b	65 33	0	
Gl'n Inn's	b	50 33	0	
Goulburn	b	49 26	0	
Grafton ..	b	76 46	0	
		0—51		
Ga.				
Gulgong	b	52 27	0	
Gunned'h	g	60 45	0	
Hay	n	61 34	0	
Inverell ..	b	58 34	0	
Kiandra	n	50 21	0	
Lismore	b	72 44	0	
Maitland	b	61 35	0	
Marsdens	n	58 39	0	
Menindie	n	52 30	0	
Molong ..	n	51 33	0	
M'r'ng'r'll	b	49 28	0	
Moree ..	b	61 36	0	
Moruya ..	b	63 36	0	
Moss Vale	n	46 33	0	
Mt. Hope	f	22 39	0	
M. Victoria	b	49 32	0	
Mudgee ..	n	62 23	0	
M'rr'm'bh	b	52 33	0	
M'rr'ndi	b	55 34	0	
Mus'br'k	b	61 34	0	
Narrabri	b	63 31	0	
Newcastle	b	63 39	0	
Orange ..	b	47 28	0	
Picton ..	b	57 35	0	
P. M'q'rie	b	63 38	0	
P. St'ph'n	b	57 36	0	
Q'nbeyan	n	49 27	0	
Quirindi	n	63 38	0	
Singleton	b	60 41	0	
SYDNEY ..	h	57 44	0	
Tam'w'rth	b	56 33	0	
Taralga ..	g	66 28	0	
Taree ..	b	65 40	0·01	
Tn't'rfield	b	57 34	0·02	
Wagga ..	b	54 25	0	
Walcha ..	b	52 32	0	
Walgett ..	g	54 42	0	
Warrah ..	n	60 32	0	
W'ntw'rth	n	49 32	0·07	
Wilcannia	c	—|—	0	
Wll'ng'ng	b	66 45	0	
Young ..	g	76 31	0	



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Max gives the maximum temperature for previous 24 hours. Min the corresponding minimum temperature; and the last column the rainfall for previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth (Fremantle): Pt, Perth; Ay, Albany; Ea, Eucla; CP, Cape Borda; A, Adelaide; Ke, Kingston; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; L, Eden; Ma, Moruya; C, Cape Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Cape Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—On coast generally fine, with scattered clouds and in places showery, with light variable winds and calm, risen barometers, and moderate sea; light rain recorded south of Beltana; greatest over Mount Lofty Ranges and on coast, where from 1 to 1½ inches fell. Inland the rainfall varies from 50 to 50 points. At 9 a.m. it was still raining at Cape Borda, Farina, and Robe. In Northern Territory fine, with S.E. winds. Extremes of barometers and temperature on coast: Port Augusta, 30·50; Robe, 30·29 and 52°; Adelaide, 46°. In Northern Territory: Daly Waters, 30·30 and 58°; Port Darwin, 30·00 and 73°.

Victoria.—Generally showery and threatening rain, with strong squally west wind, and rough sea; misty rain at Cape Schanck and Ballarat; foggy at Cape Otway; and fierce squalls at Wilson's Promontory. Rainfall: Portland 0·09, Cape Otway 0·19, Wilson's Promontory 0·64, and Lake Entrance 0·05. Extremes of barometers and temperature: Ballarat 30·22, Wilson's Promontory 29·91, Horsham 51°, and Hamilton 32°.

Tasmania.—Generally cloudy and gloomy, with fresh S.W. winds, and moderate sea; showery at Hobart; and squally, rough sea, and hailstorm at Southport. Extremes of barometers and temperature: Low Heads 29·89 and 48°, Hobart 29·84 and 41°.

New Zealand.—On North Island fine; and at Bluff showery, with strong west winds, and low barometers; passing showers, and strong west winds on west coast. Barometers: Russell 29·9, Wellington 29·7, and Bluff 29·1.

New South Wales.—Generally fine and cold, with light S.W. and W. winds, slightly risen barometers, and smooth to moderate sea; severe frost along the range; clouds, fog, and haze in places, and light rain fallen at a few scattered stations, but principally in north. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·47; Port Macquarie and Gabo Island, 29·97; Lismore and Clarence, 51°; and Cooma, 24°. Extra station: Nowra, max. 60°, min. 38°, south wind and clear; Brewarrina, max. 57°, min. 40°, strong S. wind. (For further particulars see map.)

Queensland.—Generally fine, with S. to W. winds, and moderate sea; no rain fallen. Extremes of barometers and temperature: Rockhampton, 30·20; Cape Moreton, 52°; Townsville, 29·91 and 57° at Cooktown.

9 P.M. OBSERVATIONS.

Portland, W.S.W., 28, passing showers, sea smooth, temperature 53°; Melbourne, S.S.E., 18, showery and gloomy, temperature 48°; Cape Schanck, S., 34, passing showers, sea high, temperature 54°; Wilson's Promontory, S.W., 13, cloudy and squally, rough sea, temperature 48°; Lakes Entrance, W., 28, cloudy and squally, rough sea, temperature 55°.

New South Wales.—Menindie, calm, fine and cool, temperature 53°; Wentworth, W.S.W., 28, threatening rain, temperature 50; Deniliquin, S.W., 42, fine, temperature 47°; Eden, W.S.W., 28, fine, heavy sea, temperature 55°; Moruya, S.W., 28, fine, sea moderate, temperature 60°; Cape St. George, S.W., 14, fine, sea moderate, temperature 57°; Sydney, W.S.W., 22, fine, but hazy, sea smooth, temperature 56°; Newcastle, S.W., 14, fine; Port Macquarie, S.W., 42, fine, sea moderate temperature 59°; Walgett, S.W., 14, fine and cold, temperature 38°; Dubbo, S.S.W., 28, fine, temperature 53°; Goulburn, W., fine and cold, temperature 48°.

STATE OF RIVERS.

Barwon, 38 feet 10 inches above summer level; Brewarrina, 33 feet 6 inches above summer level; Godooga, 9 feet above summer level; Gundagai, below summer level; Louth, 25 feet 6 inches above summer level; Mogil Mogil, 30 feet above summer level; Murrumbidgee, 24 feet 3 inches above summer level; Namoi, 5 feet 11 inches above summer level; Tilpa, 30 feet 6 inches above summer level. Murrumbidgee: At Wagga, 9 inches above summer level, at Hay, below summer level; at Balranald, 4 summer level, at Hay, below summer level; at Balranald, 4 inches above summer level. Murray: At Albury, 1 foot 3 inches above summer level; at Euston, 1 foot 8 inches above summer level. Darling: At Wentworth, 6 feet 6 inches above summer level; at Pooncarie, 17 feet 10 inches above summer level; at Menindie, 19 feet 10 inches above summer level; at Wilcannia, 28 feet 3 inches above summer level; at Bourke, 28 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 13.

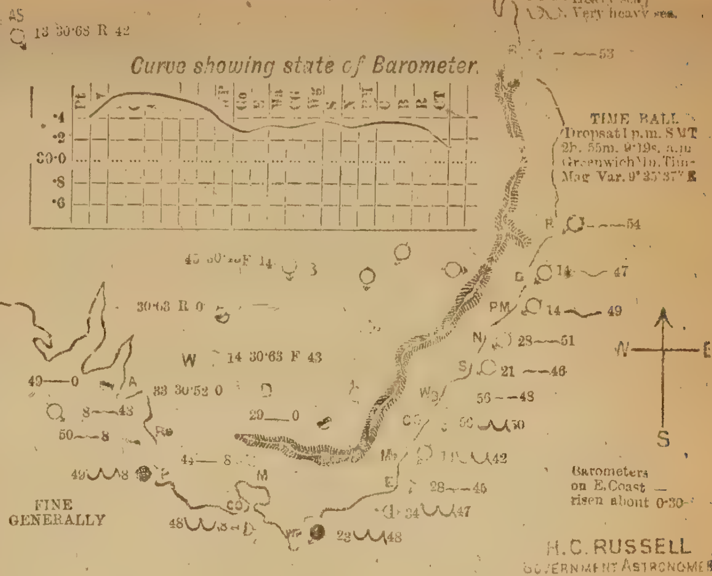
Sun rises at 7.5, sets at 5.6; Moon, 3.8 p.m., 3.52 a.m.; Mercury, 8.36 a.m., 7.6 p.m.; Venus, 4.31 a.m., 2.35 p.m.; Mars, 10.54 a.m., 11.3 p.m.; Jupiter, 10.42 a.m., 10.38 p.m.; Saturn, 6.33 a.m., 4.29 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 13: 5.56 a.m., 6.24 p.m.

… 33 51 41 S LONGITUDE 10h. 4m. 50·8s. E

Average Annual Rainfall for 27 years.......... 49·865
Average for 28 years from Jan. 1st to JUNE 30th 30·803
Total Rainfall from January 1st to JULY 13th 17·762
Barometers corrected to 32° Fah. and Mean Sea Level

Station	W.T.	Mx	Mn	Rain
Armidale	b	44	34	0
Balranald	b	62	28	0
Bathurst	b	47	29	0
Bend'm'r	b	43	32	0
Bodalla	b	—	29	0
Bourke	b	61	39	0
Bundarra	g	57	34	0
C'md'n H	b	61	48	0
C.St.Geo	b	51	43	0
Carcoar	b	44	35	0
Casino	b	67	31	0
Cassilis	n	50	36	0
Clarence	b	65	56	0
C'nd'b'lin	b	58	39	0
Cooma	n	55	30	0·12
Coonab'n	b	54	37	0
Cowra	n	55	34	0·01
Deniliq'n	f	58	27	0
Dubbo	h	52	39	0
Eden	u	56	43	0·14
Euston	b	60	32	0
Forbes	b	66	40	0
Gl'n Inn's	b	47	31	0
Goulburn	b	45	24	0
Grafton	n	73	42	0
Gulgong	b	50	31	0
Gunned'h	o	50	34	0
Hay	b	55	35	0
Inverell	b	51	29	0
Kiandra	n	40	12	0·08
Lismore	b	69	39	0
Maitland	b	61	41	0
Marsdens	c	55	40	0
Menindie	f	56	42	0
Molong	b	55	35	0
M'r'ng'r'll	b	55	33	0
Moree	b	64	34	0
Moruya	b	63	36	0·02
Moss Vale	n	45	31	0
Mt. Hope	n	39	30	0
M.Vict'ria	b	44	28	0
Mudgee	n	61	23	0
M'rr'm'bh	b	52	31	0
M'rr'r'ndi	b	51	35	0
Mus'lbr'k	n	66	28	0
Narrabri	b	53	30	0
Newcastle	b	64	41	0
Orange	n	41	30	0
Picton	b	55	39	0
P. M'q'rie	b	60	30	0
P. St'p'h'n	r	55	40	0
Q'nbeyan	n	47	30	0
Quirindi	n	59	29	0
Singleton	b	56	44	0
SYDNEY	h	57	44	0
Tamw'rth	b	58	27	0
Taralga	b	63	31	0
Taree	g	61	44	0
T'nt'rfield	b	51	26	0
Wagga	f	52	26	0
Walcha	n	45	28	0
Walgett	b	55	39	0
Warrah	n	58	32	0
W'ntw'rth	b	57	33	0
Wilcannia	c	—	—	0
W'll'ng'ng	b	66	47	0
Young	n	74	30	0



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Mx gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature; Rn, the rain for the previous 24 hours. The symbols used in the map are explained in the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, … showing the state of the sea; and, lastly, figures denoting the shade temperature at … a.m. The barometer curve shows the state of barometer round the … Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; … Pt, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; … Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light winds from N.E. to S.E., and moderate sea. Extremes of barometers and temperature: Esperance Bay, 30·59 and 36°; Cossack, 30·12 and 65°.

South Australia.—Generally cloudy and gloomy south of Farina (in parts frosty, foggy, and misty rain), with light W. to S. winds and calm; misty rain recorded south of Port Augusta, but scattered; greatest at Lobethal, where 22 points fell; showery at M'Donnell Bay; in Northern Territory fine, with S.E. winds. Extremes of barometers and temperature on coast: Eucla, 30·63 and 52°; M'Donnell Bay, 30·54 and 49°.

Victoria.—Generally gloomy and unsettled, with passing showers of misty rain, fresh westerly winds, and rough sea; snowing and showery at Omeo, foggy at Ballarat and Lakes Entrance, frosty inland. Rainfall generally, from 3 to 12 points. Extremes of barometers and temperature: Melbourne, 30·53; Omeo, 30·30 and 39°; and Cape Shanck, 51°.

Tasmania.—Generally fine, with light west and south winds, and moderate sea; dense fog at Low Heads. Rainfall: Hobart, 0·05. Extremes of barometers and temperature: Low Heads, 30·38 and 38°; Southport, 30·20 and 48°.

New Zealand.—Passing showers, with strong S.E. wind at Russell; gloomy, with S.W. wind, at Bluff; generally showery, with E. winds, on East coast. Barometers: Russell, 29·6; Wellington and Bluff, 29·7.

New South Wales.—Generally fine, clear, and cold, with risen barometers, fresh southerly winds, and moderate to heavy sea; very high barometers in west parts; heavy frost along the range; dense fog in south; and light rain fallen at a few stations in south coast districts. Kiandra reports one inch snow, and Cooma threatening snow. Raining at Nelson's Bay. Extremes of barometers and temperature at 9 a.m.: Menindie and Wentworth, 30·63; Clarence, 30·25; Newcastle, 51°; and Kiandra, 26°. Extra stations: Nowra, max. 59°, min. 36°, fine and clear; Brewarrina, max. 56°, min. 33°, fine. (For further particulars see map.)

Queensland.—Generally fine, with S. to W. winds, and moderate sea; strong S.E. winds in squalls, and rough sea at Cooktown. Extremes of barometers and temperature: Brisbane, 30·25; Cape Moreton, 51°; Townsville, 29·98; and Cooktown, 70°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.S.W., 23, cloudy, sea rough, temperature 51°; Cape Otway, W.S.W., 8, misty, rain, fog, sea rough, temperature 49°; Melbourne, S.W., 13, cloudy and gloomy, temperature 51°; Cape Schanck, S.W., 13, cloudy and misty, sea smooth, temperature 53°; Wilson's Promontory, W., 23, cloudy and squally, sea moderate, temperature 50°; Lakes Entrance, W., 23, cloudy, sea moderate, temperature 54°.

New South Wales.—Menindie, W., fine and dull, temperature 56°; Wentworth, S., dull and threatening, temperature 49°; Deniliquin, S.S.W., fine, temperature 57°; Eden, S.W., 28, fine, sea smooth, temperature 53°; Moruya, S., 28, fine, sea rough, temperature 57°; Cape St. George, S., 6, gale, sea heavy, temperature 54°; Sydney, S.S.W., 22, cloudy, sea moderate, temperature 54°; Newcastle, S.W., 28, stormy, sea heavy, temperature 56°; Port Macquarie, S.S.W., 56, fine, sea heavy, temperature 58°; Dubbo, S., fine, temperature 56°; Goulburn, W., 14, fine, temperature 50°.

STATE OF RIVERS.

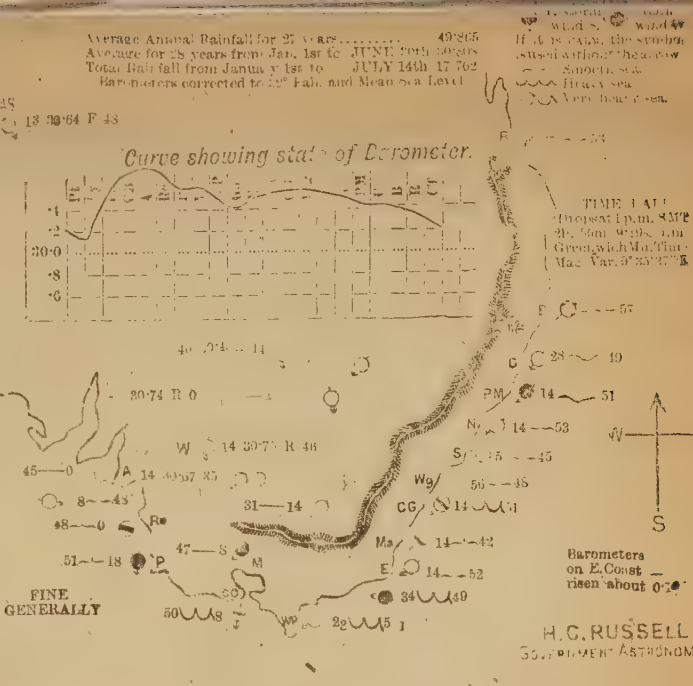
Barwon, 37 feet above summer level; Brewarrina, 34 feet above summer level; Godooga, 3 feet 6 inches above summer level; Gundagai, below summer level; Louth, 25 feet 6 inches above summer level; Mogil Mogil, 28 feet above summer level; Mungindi, 24 feet above summer level; Namoi, 4 feet above summer level; Tilpa, 30 feet 8 inches above summer level. Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, below summer level; at Balranald, 4 inches above summer level. Murray: At Albury, 1 foot above summer level; at Euston, 1 foot 8 inches above summer level. Darling: At Wentworth, 6 feet 7 inches above summer level; at Pooncarie, 18 feet above summer level; at Menindie, 20 feet 1 inch above summer level; at Wilcannia, 28 feet 6 inches above summer level; at Bourke, 29 feet above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 14.

Sun rises at 7.5, sets at 5.7; Moon, 3.56 p.m., 4.46 a.m.; Mercury, 8.36 a.m., 7.10 p.m.; Venus, 4.32 a.m., 2.36 p.m.; Mars, 10.51 a.m., 11.7 p.m.; Jupiter, 10.39 a.m., 10.35 p.m.; Saturn, 6.29 a.m., 4.25 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 14: 6.51 a.m., 7.15 p.m.

Armidale	b	47 36	0
Balranald	g	67 20	0
Bathurst	n	51 23	0
Bend'm'r	b	48 31	0
Bodalla ..	n	— 25	0
Bourke ..	b	62 35	0
Bundarra	b	60 34	0
C'mdn H.	c	57 50	0
C.St.Geo	b	63 52	0
Carcoar ..	n	45 29	0
Casino ..	c	64 36	0
Cassilis ..	n	49 31	0
Clarence	b	65 46	0
Cond'b'lin	b	55 35	0
Cooma ..	n	49 13	0
Coonab'n	n	55 23	0
Cowra ..	n	58 30	0
Deniliq'n	n	59 27	0
Dubbo ..	h	58 24	0
Eden	g	55 45	0
Euston ..	b	60 35	0
Forbes ..	b	64 39	0
Gl'n Inn'	b	53 34	0
Goulburn	n	60 20	0
Grafton ..	b	71 44	0
Gu[illegible]gong	b	51 33	0
Gunned'h	b	60 34	0
Hay	b	58 33	0
Inverell ..	n	52 31	0
Kiandra	n	38 10	0
Lismore	b	70 44	0
Maitland	b	61 44	0
Marsdens	n	55 34	0
Menindie	n	54 38	0
Molong ..	n	56 27	0
M'r'ng'r'll	n	55 26	0
Moree ..	b	65 35	0
Moruya ..	g	60 35	0
Moss Vale	n	46 30	0
Mt. Hope	b	52 41	0
M. Vict'ria	b	46 29	0
Mudgee ..	n	67 22	0
M'r'm'bh	b	62 27	0
M'r'r'ndi	b	55 38	0
Mus'll'br'k	b	56 34	0
Narrabri	b	56 33	0
Newcastle	b	58 46	0·22
Orange ..	n	44 25	0
Picton ..	n	56 28	0
P. M'q'rie	r	58 47	0·15
P. St'ph'n	r	53 40	0·70
Q'nbeyan	n	43 28	0
Quirindi	b	61 35	0
Singleton	b	56 47	0
Sydney ..	h	55 43	0
Tamw'rth	—	—	—
Taralga ..	b	61 20	0
Taree	g	59 48	0
T'nt'rfield	n	56 36	0
Wagga ..	n	55 21	0
Walcha ..	g	48 32	0
Walgett ..	b	54 35	0
Warrah ..	b	58 34	0
W'ntw'rth	b	52 41	0
Wilcannia	b	— —	0
W'll'ng'ng	b	60 39	0
Young ..	b	74 26	0



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light E. to N. winds and moderate sea. Gloomy at Albany, rough sea off Cossack. Extremes of barometers and temperature: Esperance Bay, 30·47 and 30·; Carnarvon, 30·20 and 72·.

South Australia.—Generally fine and cold, with scattered clouds, and variable winds and calms. Gloomy in places near coast, and showery at M'Donnell Bay. Rainfall: Near coast from one to four points. Extremes of barometers and temperature: Adelaide, 30·72 and 45·; Eucla, 30·60 and 53· In Northern Territory: Daly Waters, 30·24 and 58·; Port Darwin, 30· and 68·.

Victoria.—Generally passing showers of misty rain, with light west to south winds, and rough sea; foggy at Cape Otway and Omeo, frosty inland. Rainfall; Generally along the coast, from 1 to 9 points. Extremes of barometers and temperature: Melbourne, 30·64; Echuca, 30·52; Cape Shanck, 53·; and Omeo, 34·.

Tasmania.—At Low Heads, fine, with south wind and smooth sea; barometer, 30·54; and temperature, 53·.

New Zealand.—Passing showers at Wellington and Gisborne, with rough sea off the latter place; fine in extreme north and south. Barometers: Russell, 30·0; Gisborne, 29·8; Wellington, 29·9; and Bluff, 29·7.

New South Wales.—Generally fine and cold, with risen barometers, light south to west winds, and calm and moderate sea; very high barometers in western parts; severe frost in south and along the range as far north as Tenterfield; light rain fallen at mouths of Hunter and Macleay Rivers; and rough sea at Camden Haven, Port Stephens, Cape St. George, and Gabo Island. At 9 a.m. it was raining at Port Macquarie, Nelson's Bay, and Gabo. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·75; Port Macquarie, 30·35; Newcastle, 53·; and Cooma, 26·. Extra stations: Nowra, max. 58·, min. 37·, calm and clear; Brewarrina, max. 57·, min. 31·, and south wind. (For further particulars see map.)

Queensland.—Generally fine, with S.E. to S.W. winds, and moderate sea; squally and rough sea at Cooktown. Extremes of barometers and temperature: Rockhampton, 30·38 and 53·; Townsville, 29·98; and Cooktown, 73·.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S., 13, fine but cloudy, sea smooth, temperature 53·; Cape Otway, S.S.E., 8, cloudy and misty, sea moderate, temperature 50·; Melbourne, S., 13, cloudy and gloomy, temperature 52·; Cape Schanck, S.E., 13, cloudy and misty, sea smooth, temperature 53·; Wilson's Promontory, S.W., 13, cloudy, sea moderate, temperature 53·; Lakes Entrance, W.S.W., 23, passing showers, sea rough, temperature 54·.

New South Wales.—Menindie, S.W., 14, fine, temperature 55·; Wentworth, S.W., 28, fine, temperature 51·; Deniliquin, S.W., fine, temperature 48·; Eden, S.W., 28, fine, sea smooth, temperature 56·; Moruya, S., 42, fine, sea moderate, temperature 57·; Cape St. George, S.S.W., 14, fine, sea moderate, temperature 59·; Sydney, S., 16, fine and hazy, sea smooth, temperature 55·; Newcastle, S.W., 14, fine, sea moderate, temperature 59·; Port Macquarie, S.S.W., 42, cloudy, sea moderate, temperature 61·; Clarence River, S., 28, fine, sea moderate, temperature 63·; Walgett, E., fine, temperature 62·; Dubbo, calm, fine, temperature 52·; Goulburn, calm, fine, temperature 43·.

STATE OF RIVERS.

Barwon, 36 feet 2 inches above summer level; Brewarrina, 36 feet above summer level; Godooga, 3 feet above summer level; Gundagai, below summer level; Louth, 25 feet above summer level; Mogil Mogil, 27 feet above summer level; Mungindi, 23 feet 9 inches above summer level; Namoi, 3 feet above summer level; Tilpa, 30 feet 8 inches above summer level. Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, below summer level; at Balranald, 9 inches above summer level. Murray: At Albury, 10 inches above summer level; at Euston, 1 foot 7 inches above summer level. Darling: At Wentworth, 6 feet 7 inches above summer level; at Pooncarie, 18 feet 3 inches above summer level; at Menindie, 20 feet 3 inches above summer level; at Wilcannia, 29 feet 6 inches above summer level; at Bourke, 29 feet 6 inches above summer level.

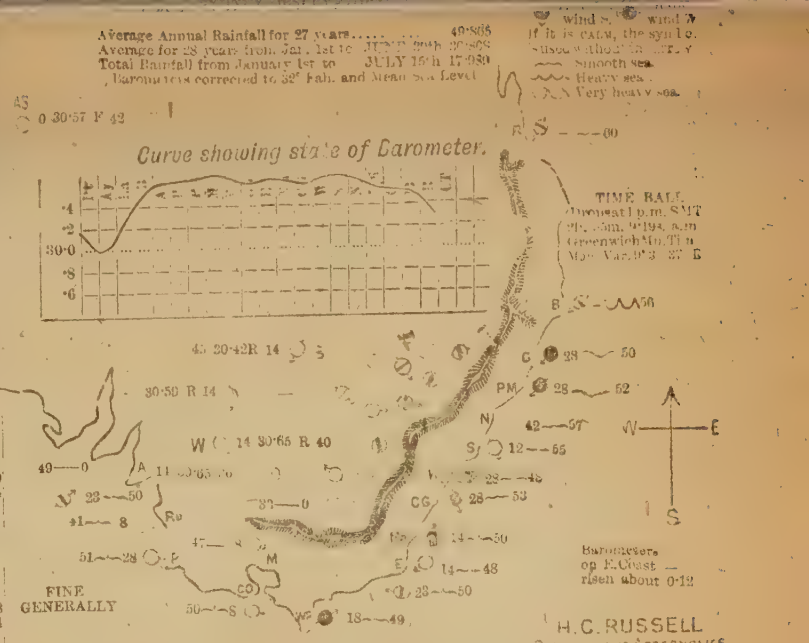
ASTRONOMICAL MEMORANDA FOR JULY 15.

Sun rises at 7.4, sets at 5.7; Moon, 4.46 p.m., 5.38 a.m.; Mercury, 8.35 a.m., 7.11 p.m.; Venus, 4.34 a.m., 2.37 p.m.; Mars, 10.43 a.m., 11.6 p.m.; Jupiter, 10.35 a.m., 10.32 p.m.; Saturn, 6.26 a.m., 4.22 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 15: 7.38 a.m., 7.59 p.m.

Armidale	g	50 35	0
Balranald	b	68 28	0
Bathurst	b	56 28	0
Bend'm'r	g	55 31	0
Bodalla ..	g	— 32	0
Bourke ..	b	61 38	0
Bundaria	c	63 35	0
C'mdn B	c	62 54	0·17
C. St. Geo	r	70 49	0·40
Carcoar ..	n	45 31	0
Casino ..	c	67 44	0·07
Casilis ..	o	52 34	0
Clarence	r	64 51	0
C'nd'b'lin	n	55 31	0
Cooma ..	n	52 28	0
Coonab'a	h	59 26	0
Cowra ..	n	56 31	0
Deniliq'n	n	63 30	0
Dubbo ..	h	61 28	0
Eden	b	58 40	0
Euston ..	n	66 31	0
Forbes ..	n	63 35	0
Gl'n Inn's	g	58 35	0
Goulburn	g	55 36	0
Grafton ..	o	73 47	0
Gu[illegible]kong	b	52 30	0
Gunned'h	b	54 40	0
Hay	b	60 36	0
Inverell ..	o	57 37	0
Kiandra	c	33 25	0·20
Lismore	r	63 49	0·04
Maitland	c	60 45	0
Marsdens	n	56 35	0
Menindie	n	55 38	0
Molong ..	n	57 28	0
M'r'ng'r'll	b	55 32	0
Moree ..	g	72 44	0
Moruya ..	r	61 51	0
Moss Vale	r	46 35	0·28
Mt. Hope	n	53 40	0·04
M. Vict'ria	r	48 37	0
Mudgee ..	c	68 27	0
M'r'm'bh	n	60 29	0
M'r'r'ndi	g	54 40	0
Mus'br'k	g	61 29	0
Narrabri	h	60 33	0
Newcastle	g	61 46	0·05
Orange ..	c	46 24	0
Picton ..	u	57 28	0·01
P. M'q'rie	r	62 46	0·02
P. St'ph'n	b	58 44	0·15
Q'nbeyan	n	49 28	0
Quirindi	b	65 37	0
Singleton	b	69 47	0·04
SYDNEY ..	b	57 45	0·23
Tamw'rth	n	57 30	0
Taralga ..	r	65 39	0
Taree	g	66 47	0
T'nt'rfield	u	59 46	0
Wagga ..	n	54 22	0
Walcha ..	g	51 31	0
Walgett ..	b	58 40	0
Warrah ..	b	63 46	0
W'ntw'rth	b	58 39	0
Wilcannia	b	—|—	0
W'll'ng'ng	d	62 49	0·16
Young ..	b	72 34	0

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to JULY 15th [illegible] 20·892
Total Rainfall from January 1st to JULY 15th 17·930
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. Min the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from whic. the wind is coming. A clear circle with it means fine weather; a circle with bar. cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: P, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ke, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Cape Moreton; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the rate of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On west coast fine, with light E. to S.E. winds and rough sea. Foggy at Perth. On south coast gloomy and threatening, with fresh N.W. winds and calm, and moderately smooth sea. Rainfall: Perth, 0·04; Albany, 0·14. Extremes of barometers and temperature: Albany, 29·97; Geraldton, 30·23; Carnarvon, 73°; and Esperance Bay, 53°.

South Australia.—Generally fine and cold, with scattered clouds on parts of coast and over Mount Lofty Ranges. Light N.E. to S.E. winds, fallen barometers, and moderate sea. Heavy dew at Adelaide; but no rain fallen. Extremes of barometers and temperature: On coast—Robe, 30·64 and 41°; Cape Borda, 30·50 and 50°.

Victoria.—Generally fine and cold, with light N. to N.E. winds, fallen barometer, and moderate sea. Squally and passing showers at Wilson's Promontory; rough sea at Lakes Entrance; misty at Cape Otway; heavy dew at Melbourne; and frosty inland. One point rain fallen at Omeo and Portland. Extremes of barometer and temperature: Melbourne, 30·68; Horsham, 30·51 and 53°; and Omeo, 39°.

Tasmania.—Generally fine, with light variable wind, risen barometer, and smooth sea. Dense fog at Low Heads and Hobart. Frosty at Southport. Extremes of barometers and temperature: Circular Head, 30·20, and 38°; Falmouth, 30·62; Hobart, 34.

New Zealand.—Showery at Wellington; snowing but fine in south parts; fine and clear in north. Barometers: Russell and Bluff, 30·0; Wellington, 30·1.

New South Wales.—In districts near coast and range generally unsettled, with passing showers from seaward, along the seaboard, where 14 stations report from one to 40 points rain already fallen, the heaviest fall being at Cape St. George. In south parts severe frost; in western, hazy and fine. In coast districts fresh winds are blowing from S. to E.; inland generally calm. Barometers are high and almost steady, and temperature risen and mild. Sea smooth to moderate, but heavy at Camden Haven. Extremes of barometers and temperature at 9 a.m.: Wollongong, 30·66; Port Macquarie, 30·42; Newcastle, 57°; and Kiandra, 30°. Extra stations: Nowra, max. 58°, min. 44°, rainfall 0·20, and occasional showers; Brewarrina, max. 60°, min. 34°. For further particulars see map.

Queensland.—Generally fine, with S.E. to S.W. winds and rough sea. Rain at Townsville, 60 points fallen; squally from S.E. at Cooktown; 73 points rain at Cape Moreton. Extremes of barometers and temperature: Brisbane, 30·48 and 56°; Townsville, 29·93; and Cooktown 69°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E., 18, fine, smooth sea, temperature 54°; Cape Otway, E., 8, fine but misty, smooth sea, temperature 52°; Melbourne, N.E., 13, fine, temperature 58°; Cape Schanck, S.E., 8, fine, smooth sea, temperature 53°; Wilson's Promontory, N.E., 13, fine but cloudy, moderate sea, temperature 54°.

New South Wales.—Menindie, calm, fine, temperature 54°; Wentworth, N., 14, fine and clear, temperature 52°; Deniliquin, S.E., fine, temperature 60°; Eden, S.E., 14, fine, smooth sea, temperature 56°; Moruya, S.S.E., 28, gloomy, smooth sea, temperature 56°; Cape St. George, S.E., 42, fine, moderate sea, temperature 55°; Sydney, S.S.E., 12, fine, smooth sea, temperature 56°; Newcastle, S.S.E., 28, showery, moderate sea, temperature 55°; Port Macquarie, S.S.W., 28, showery, moderate sea, temperature 60°; Dubbo, E., 28, fine, temperature 56°; Goulburn, E., dull, temperature 51°.

STATE OF RIVERS.

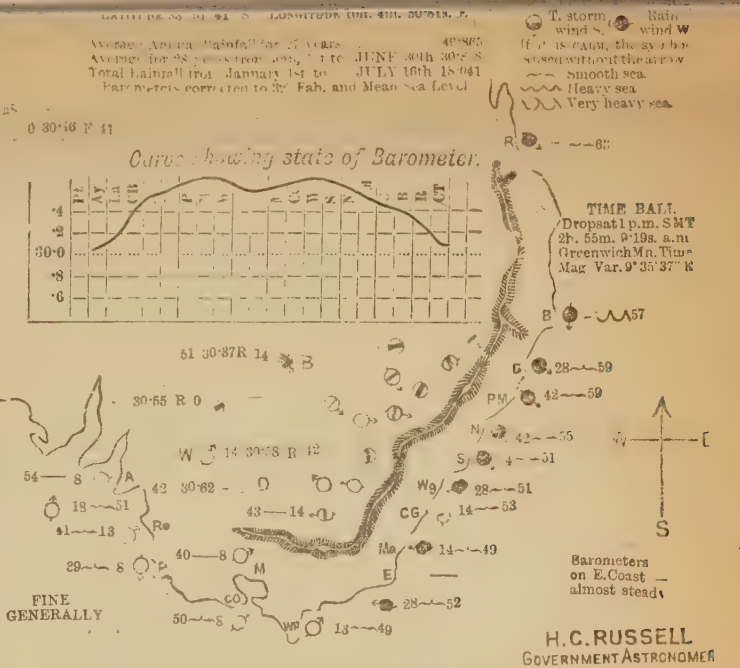
Barwon, 35 feet 6 inches above summer level; Brewarrina, 37 feet 6 inches above summer level; Godooga, 7 feet 3 inches above summer level; Gundagai, below summer level; Louth, 25 feet 6 inches above summer level; Mogil Mogil, 26 feet above summer level; Mungindi, 2 feet 5 inches above summer level; Namoi, low; Tilpa, 30 feet 10 inches above summer level. Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, below summer level; at Balranald, 3 inches above summer level. Murray: At Albury, 1 foot above summer level; at Euston, 1 foot 7 inches above summer level. Darling: At Wentworth, 6 feet 8 inches above summer level; at Pooncarie, 18 feet 4 inches above summer level; at Menindie, 20 feet 4 inches above summer level; at Wilcannia, 28 feet 9 inches above summer level; at Bourke, 30 feet above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 16.

Sun rises at 7.4, sets at 5.8; Moon, 5.38 p.m., 6.26 a.m.; Mercury, 8.33 a.m., 7.13 p.m.; Venus, 4.35 a.m., 2.38 p.m.; Mars, 1.40 a.m., 11.5 p.m.; Jupiter, 10.32 a.m., 10.29 p.m.; Saturn, 6.32 a.m., 4.18 p.m. New Moon, 2nd; Full Moon, 18th; New Moon, 31st.

High water at Fort Denison, July 16: 8.19 a.m., 8.39 p.m.

Armidale	g	50	42 0·06
Balranald	b	71	30 0
Bathurst	g	52	41 0
Bend'm'r	g	56	45 0
Bodalla ..	c	64	42 0·06
Bourke ..	r	64	44 0
Bundarra	c	62	46 0
C'md'n H	c	64	6· 0·31
C. St. Geo	o	60	50 0·05
Carcoar ..	b	2	2 0
Casino ..	r	6	50 0·25
Cassilis ..	o	52	44 0
Clarence	r	64	51 0·35
C'nd'b'lin	b	57	36 0
Cooma ..	n	57	32 0
Coonab'n	h	59	32 0
Cowra ..	n	57	30 0
Deniliq'n	b	64	35 0
Dubbo ..	b	62	37 0
Eden		—	— 0
Euston ..	b	67	33 0
Forbes ..	n	66	39 0
Gl'n Inn's	d	50	41 0
Goulburn	b	50	38 0·01
Grafton ..	r	66	53 0
Gu Ea.			
Gunnedah	c	61	47 0
Hay	b	61	43 0
Inverell ..	o	51	42 0
Kiandra ..	n	37	25 0
Lismore ..	r	62	53 0·21
Maitland ..	o	61	49 0·18
Marsdens ..	n	60	37 0
Menindie ..	g	57	42 0
Molong ..	n	56	35 0
M'r'ng'r'll	b	57	36 0
Moree ..	g	63	40 0
Moruya ..	r	59	46 0·03
Moss Vale	u	47	35 0·05
Mt. Hope	g	58	39 0
M. Victoria	r	45	37 0·25
Mudgee ..	u	66	50 0
M'r'm'bh	c	55	31 0
M'r'r'ndi	o	53	43 0
Mus'lbr'k	g	62	45 0·03
Narrabri	g	62	39 0
Newcastle	r	59	53 0·30
Orange ..	c	50	36 0
Picton ..	u	57	41 0·02
P. M'q'rie	r,	62	51 0·40
P. St'ph'n	g	60	49 0·29
Q'nbeyan	b	50	34 0
Quirindi	g	61	39 0
Singleton	c	57	40 0·08
SYDNEY ..	r	58	50 0·05
Tamw'rth	g	60	32 0
Taralga ..	r	52	38 0·08
Taree	r	60	50 0·32
T'nt'rfield	r	55	47 0·04
Wagga ..	b	58	31 0
Walcha ..	r	48	37 0
Walgett ..	g.	60	44 0
Warrah ..	g	59	38 0
W'ntw'rth	b	63	37 0
Wilcannia	c	—	— 0
W'll'ng'ng	r	58	49 0·12
Young ..	g	74	34 0



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy, gloomy, and threatening rain, with light easterly winds on west coast, north winds in south, fallen barometers, and smooth sea. Very strong and squally south wind, showery and rough sea at Albany. Foggy at Perth. Rainfall: Albany, 0·20; Esperance Bay, 0·26; Carnarvon, 0·07; and Geraldton, 0·15. Extremes of barometers and temperature: Geraldton, 30·29; Esperance Bay, 30·00; Carnarvon, 73°; and Albany, 43°.

South Australia.—Generally fine and cold, with fallen barometers, light E. to N. winds, and smooth sea. Frosty at Adelaide. Extremes of barometers and temperature: On coast—M'Donnell Bay, 30·57 and 43°; Eucla, 30·18; and Adelaide, 54°. In Northern Territory—Daly Waters, 30·15 and 62°; Port Darwin, 29·94 and 72°.

Victoria.—Generally fine, with light N.E. to S.E. winds, steady barometers, and smooth sea; foggy at Omeo, hazy and heavy dew along coast, and frosty inland. Extremes of barometers and temperature: Omeo, 30·67 and 30°; Echuca, 30·54; and Cape Otway, 50°.

Tasmania.—At Low Heads cloudy with light S.E. wind and smooth sea. Barometer 30·69, and temperature 43°.

New Zealand.—Generally fine and calm, and barometers standing at 30·2.

New South Wales.—Generally cloudy, gloomy, and unsettled weather, with fresh easterly winds, high and almost steady barometers, mild, temperate, and moderate sea. Showery along the coast and on the range north. Light rain recorded in districts, principally between Shoalhaven and Hunter rivers, but heaviest at Port Macquarie. Beyond the range in south parts fine and clear, but frosty. Extremes of barometers and temperature at 9 a.m.: Wollongong 30·67; Bourke, 30·37; Newcastle and Port Macquarie, 59°; and Kiandra, 31°. For further particulars see map.

Queensland.—In south parts showery, in north cloudy, with S.E. to E. winds. Barometers almost steady, and sea continues rough off Cape Moreton and at Cooktown; at the latter place it is also squally. Rainfall: Rockhampton, 0·73; Townsville, 1·17; and Brisbane, 0·05. Extremes of barometers and temperature: Brisbane, 30·40 and 57°; Townsville, 29·97; and Cooktown, 72°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E., 18, fine, smooth sea, temperature 56°; Cape Otway, E.N.E., 8, cloudy and hazy, smooth sea, temperature 55°; Melbourne, S., 13, fine, temperature 50°; Wilson's Promontory, N.E., 13, fine but cloudy, smooth sea, temperature 56°.

New South Wales.—Menindie, S.W., 14, dull, temperature 57°; Wentworth, S.E., 14, overcast and dull, temperature 53°; Deniliquin, S.E., 14, dull, temperature 59°; Eden, N.E., 14, fine, smooth sea, temperature 55°; Moruya, S. 14, fine, moderate sea, temperature 56°; Cape St. George, S. 14, dull, smooth sea, temperature 60°; Sydney, E.S.E., 12, overcast and dull, smooth sea, temperature 57°; Newcastle, S.E., 28, dull, moderate sea, temperature 60°; Port Macquarie, N.S.E., 42, squally and overcast, moderate sea, temperature 66°; Clarence River, E., 28, dull, moderate sea, temperature 64; Dubbo, E., 28, fine, temperature 61°; Goulburn, E., dull, temperature 52°.

STATE OF RIVERS.

Barwon, 34 feet 11 inches above summer level; Brewarrina, 38 feet 6 inches above summer level; Godooga, 6 feet 5 inches above summer level; Gundagai, summer level; Louth, 26 feet above summer level; Mogil Mogil, 25 feet above summer level; Mungindi, 22 feet 11 inches above summer level; Namoi, low; Tilpa, 30 feet 11 inches above summer level. Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, summer level; at Balranald, 2 inches above summer level. Murray: At Albury, 1 foot above summer level; at Euston, 1 foot 6 inches above summer level. Darling: At Wentworth, 6 feet 8 inches above summer level; at Pooncarie, 18 feet 5 inches above summer level; at Menindie, 20 feet 6 inches above summer level; at Wilcannia, 29 feet above summer level; at Bourke, 30 feet 8 inches above summer level.

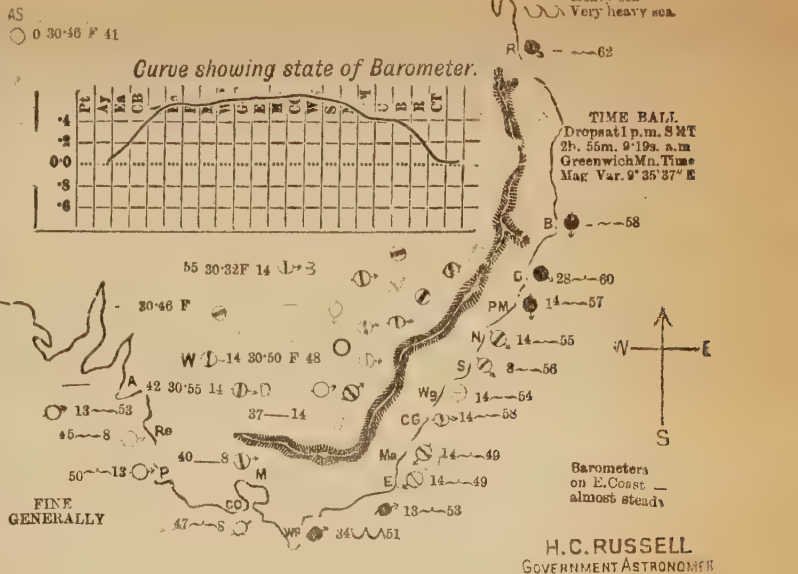
ASTRONOMICAL MEMORANDA FOR JULY 17.

Sun rises at 7.3, sets at 5.8; Moon, 6.31 p.m., 7.12 a.m.; Mercury, 8.32 a.m., 7.14 p.m.; Venus, 4.37 a.m., 2.39 p.m.; Mars, 10.42 a.m., 11.4 p.m.; Jupiter, 10.28 a.m., 10.26 p.m.; Saturn, 6.19 a.m., 4.15 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 17: 8.58 a.m., 9.16 p.m.

Armidale	c	58	44	0·01
Balranald	g	70	34	0
Bathurst	g	54	44	0
Bend'm'r	c	56	44	0
Bodalla ..	g	62	42	0·01
Bourke ..	b	60	45	0·22
Bundarra	u	59	50	0
C'md'n H	c	63	56	1·00
C.St. Geo	c	62	34	0
Carcoar ..	g	48	39	0
Casino ..	r	69	53	0·70
Cassilis ..	c	57	50	0·06
Clarence	r	66	51	0·20
C'nd'b'lin	o	59	39	0
Cooma ..	c	62	27	0
Coonab'n	b	60	43	0
Cowra ..	g	58	34	0
Deniliq'n	g	65	37	0
Dubbo ..	b	65	44	0
Eden	c	57	48	0·11
Euston ..	g	69	41	0
Forbes ..	g	63	37	0
Gl'n Inn's	g	48	45	0
Goulburn	g	50	40	0·01
Gr.fton ..	u	71	56	0·13
Gulgong	b	55	40	0
Gunned'h	b	62	47	0
Hay	c	64	43	0
Inverell ..	o	61	46	0
Kiandra	n	40	25	0
Lismore	r	67	57	0·70
Maitland	g	62	50	0·22
Marsdens	b	63	41	0
Menindie	g	59	47	0
Molong ..	c	57	35	0
M'r'ng'r'll	–	—	—	–
Moree ..	g	60	47	0·05
Moruya ..	g	61	42	0·10
Moss Vale	r	48	43	0·05
Mt. Hope	–	—	—	–
M. Vict'ria	r	48	40	0·45
Mudgee ..	c	59	43	0
M'r'm'bhl	c	63	43	0
M'r'r'ndi	c	55	45	0
Mus'br'k	b	62	45	0·66
Narrabri	c	61	48	0
Newcastle	g	62	56	0·21
Orange ..	c	53	39	0
Picton ..	r	56	43	0·86
P. M'q'rie	r	65	53	0·56
P. St'ph'n	g	62	56	0·25
Q'nbeyan	g	53	41	0
Quirindi	b	60	47	0
Singleton	b	60	53	0·35
Sydney ..	o	58	51	0·09
Tamw'rth	o	61	39	0
Taralga ..	r	51	39	0·10
Taree	r	61	52	2·32
T'nt'rfield	r	59	50	0
Wagga ..	b	60	36	0
Walcha ..	r	49	40	0·04
Walgett ..	b	61	51	0
Warrah ..	g	59	39	0
W'ntw'rth	b	63	41	0
Wilcannia	o	—	—	0
W'll'ng'ng	o	59	52	0·26
Young ..	g	72	44	0

Average Annual Rainfall for 27 years..... 40·865
Average for 28 years from Jan. 1st to JUNE 30th 30·508
Total Rainfall from January 1st to JULY 17th 18·131
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy: h, hazy; m, misty: n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ke, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, cloudy and gloomy, with light N.E. wind and smooth sea. Rainfall, 0·01; barometer, 30·01; and temperature, 43°.

South Australia.—Generally fine and cold, near coast gloomy in places, with light E. to N. winds, fallen barometers, and smooth sea; no rain fallen. Extremes of barometers and temperature: M'Donnel Bay, 30·54, and 44°; Eucla, 30·11, and 54°.

Victoria.—Generally unsettled, with fresh N. to E. winds, fallen barometers, and moderate sea; gloomy and frosty inland; dense fog at Melbourne, and at Wilson's Promontory light misty rain, squally and rather strong E. wind and rough sea. Extremes of barometers and temperature: Omeo, 30·63, and 33°; Portland, 30·54, and 50°.

Tasmania.—At Low Heads, cloudy and gloomy weather, with fresh S.E. wind and smooth sea. Barometer, 30·71, and temperature 43°.

New Zealand.—Generally fine, with light S.W. winds, and barometers risen to 30·4.

New South Wales.—Generally cloudy and threatening rain, with light easterly winds, high and steady barometers, mild temperature, and moderately smooth sea. Light rain fallen at over 20 stations scattered through coast districts, principally between Manning and Shoalhaven Rivers, and heaviest at Taree and Camden Haven; the former having 2·32, and the latter one inch during last 24 hours. At 9 a.m. it was still raining more or less heavily in coastal districts. Extremes of barometers and temperature at 9 a.m.: Wollongong, 30·30; Forbes, 30·31; Clarence, 60°; and Kiandra, 30° Extra stations: Nowra, max. 77°, min. 47°, rainfall, 0·13, and cloudy. Camden: Rainfall, 0·60; weather overcast and threatening. Lawrence: Rainfall, 0·54, during last two days and still raining. (For further particulars see map.)

Queensland.—In south parts heavy showers, in north dull and cloudy, with S.E. to E. winds, and moderate sea; squally, with rough sea, at Cooktown. Rainfall: Rockhampton, 0·64; Cape Moreton, 0·42. Extremes of barometer and temperature: Brisbane, 30·33 and 58°; Townsville, 29·91; and Cooktown, 75°

9 P.M. OBSERVATIONS.

Victoria.—Portland, E., 18, fine, smooth sea, temperature 54°; Cape Otway, E.S.E., 6, misty, smooth sea, temperature 52°; Melbourne, no observations; Wilson's Promontory, E.N.E., 36°, squally, rough sea, temperature 53°.

New South Wales.—Menindie, calm, showery, temperature 59°; Wentworth, E., cloudy, like rain, temperature 53°; Deniliquin, E., 14, cloudy, temperature 60°; Moruya, S.E., 28, cloudy, moderate sea, temperature 54°; Cape St. George, S.E., 14, cloudy, smooth sea, temperature 60°; Sydney, S., 20, cloudy, smooth sea, temperature 54°; Newcastle, S.E., 20, cloudy, moderate sea, temperature 60°; Port Macquarie, N.N.E., 40, cloudy and squally, moderate sea, temperature 63°; Clarence River, calm, cloudy, moderate sea, temperature 62°; Dubbo, E.N.E., 14, fine, temperature 62°; Goulburn, E., 10, cloudy, temperature 55°.; Brewarrina, E., 28, cloudy.

STATE OF RIVERS.

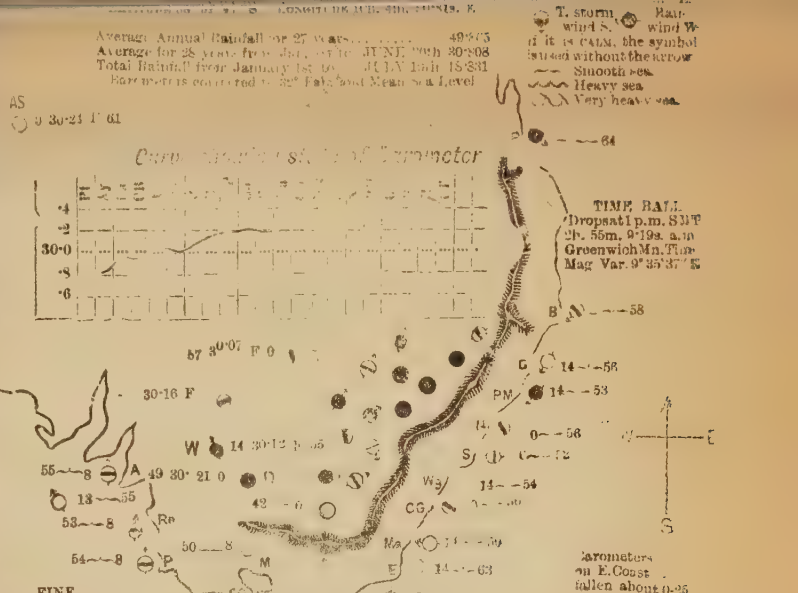
Barwon, 34 feet 10 inches above summer level; Brewarrina, 39 feet above summer level; Godooga, 7 feet 9 inches above summer level; Gundagai, summer level; Louth, 26 feet 3 inches above summer level; Mogil Mogil, 24 feet 6 inches above summer level; Mungindi, 22 feet 11 inches above summer level; Namoi, low; Tilpa, 31 feet above summer level. Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, summer level; at Balranald, 1 inch above summer level. Murray: At Albury, 10 inches above summer level; at Euston, 1 foot 6 inches above summer level. Darling: At Wentworth, 6 feet 9 inches above summer level; at Pooncarie, 18 feet 6 inches above summer level; at Menindie, 20 feet 7 inches above summer level; at Wilcannia, 29 feet 2 inches above summer level; at Bourke, 31 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 19.

Sun rises at 7.2, sets at 5.9; Moon, 8.16 p.m., 8.30 a.m.; Mercury, 8.29 a.m., 7.17 p.m.; Venus, 4.40 a.m., 2.0 p.m.; Mars, 10.37 a.m., 11.1 p.m.; Jupiter, 10.21 a.m., 10.19 p.m.; Saturn, 6.12 a.m., 4.8 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 19: 10.8 a.m., 10.24 p.m.

Armidale	r	55	46	0·19
Balranald	r	72	35	0·23
Bathurst	r	60	34	0·06
Bend'm'r	r	59	47	0·08
Bodalla ..	c	68	40	0·04
Bourke ..	g	67	56	0·16
Bundarra	r	69	41	0·07
C'md'n H	b	66	53	0
C.St. Geo	c	62	50	0
Carcoar ..	g	54	43	0
Casino ..	u	72	54	0
Cassilis ..	o	56	51	0·06
Clarence	b	71	51	0·17
C'nd'b'lin	g	65	41	0
Cooma ..	n	60	25	0
Coonab'n	r	65	49	0·13
Cowra ..	c	60	30	0
Deniliq'n	r	69	39	0·08
Dubbo ..	r	65	49	0·04
Eden	b	59	45	0
Euston ..	g	69	50	0
Forbes ..	r	64	41	0·04
Gl'n Inn's	g	62	45	0
Goulburn	g	54	43	0
Grafton ..	b	56	54	0·10
Gulgong	u	60	40	0·14
Gunned'h	o	64	50	0·15
Hay	r	66	53	0·05
Inverell ..	r	63	38	0
Kiandra	n	51	26	0
Lismore	r	74	36	0
Maitland	g	64	45	0·05
Marsdens	u	65	45	0
Menindie	g	59	56	0·06
Molong ..	r	62	37	0
M'r'ng'r'll	o	64	50	0
Moree ..	r	76	51	0·29
Moruya ..	b	53	35	0
Moss Vale	f	50	43	0·06
Mt. Hope	g	56	46	0·13
M. Vict'ria	r	51	39	0·25
Mudgee ..	r	69	39	0·10
M'rr'm'bh	c	66	39	0
M'rr'ndi	o	56	46	0
Mus'br'k	g	65	49	0·03
Narrabri	r	66	39	0·51
Newcastle	g	63	55	0·05
Orange ..	r	53	41	0·02
Picton ..	g	59	42	0·14
P. M'q'rie	r	66	50	0·19
P. St'ph'n	g	65	46	0
Q'nbeyan	u	54	41	0
Quirindi	r	68	42	0·08
Singleton	g	62	53	0
SYDNEY ..	o	60	51	0·70
Tamw'rth	r	65	50	0·07
Taralga ..	g	59	37	0·10
Taree	c	66	53	0·18
T'nt'rfield	g	66	51	0·02
Wagga ..	r	66	39	0·05
Walcha ..	c	55	31	0·02
Walgett ..	g	67	55	0·41
Warrah ..	g	58	42	0
W'ntw'rth	r	65	55	0·10
Wilcannia	r	—	—	0
W'll'ng'ng	c	58	52	0·03
Young ..	g	74	46	0



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; q, ...; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; Rain the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland, M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Mo, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On south coast fine, with fresh N.E. winds, low barometer, and rough sea. Rainfall at Esperance Bay, 0·28; and temperature, 45°.

South Australia.—Generally cloudy, gloomy, and threatening; rain south of Beltana, with rain in places, light N.E. to N.W. winds and calms; light rain recorded south of Hergott, greatest at Minlaton and Mitcham, where 62 and 53 points fell; along the coast the fall ranged from 6 to 38 points, being greatest at Adelaide. In Northern Territory fine, with S.E. winds and calms. Extremes of barometers and temperature on coast: Adelaide 30·03 and 55°; Streaky Bay, 29-94 and 53. In Northern Territory, Daly Waters, 30·07 and 73°; Port Darwin, 29·80 and 70°.

Victoria.—Generally fine, with light W. to E. winds, fallen barometers, and moderate sea; hazy on coast, and frosty inland. Rainfall: Portland, 0·04; Wilson's Promontory, 0·10. Extremes of barometers and temperature: Omeo, 30·23 and 32°; Portland, 30·02 and 54°.

Tasmania.—At Low Heads: Cloudy, with fresh S.E. wind, fallen barometer, and smooth sea; barometer, 30·23, and temperature, 46°.

New Zealand.—Generally fine, with S. to S.W. winds; gloomy at Wellington. Barometers: Russell, 30·3; Wellington and Bluff, 30·1.

New South Wales.—Generally cloudy and threatening rain, with light southerly winds, fallen barometers, mild temperature, and moderately smooth sea. Raining more or less heavily at 25 stations in western parts, along the western slope of the range, and on the coast on the north; light rain fallen on both sides of the range, principally in the Darling watershed, but heaviest at Sydney, where, at about 5 p.m. on Saturday afternoon, a short but very heavy shower passed over the northern parts. During a few minutes it rained at the rate of 4·20 inches per hour. Extra stations: Nowra, max. 60°, min. 45°, rainfall, 0·02, and cloudy. Camden: Rainfall, 0·22; dull and overcast. (For further particulars see map.)

Queensland.—Generally cloudy, gloomy, and raining, with light S.E. to S.W. winds, and moderate sea. Rainfall: Cooktown, 0.19; Townsville, 0·14; Rockhampton, 0·11; Cape Moreton, 0·16. Extremes of barometer and temperature: Rookhampton, 30·36; Brisbane, 58°; Townsville, 29·76; and Cooktown, 75°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.E., 8, heavy swell, smooth, temperature 55°; Cape Otway, N.E., 8, cloudy and misty, smooth sea, temperature 51°; Melbourne, N.E., 8, cloudy and gloomy, temperature 61°; Wilson's Promontory, N.E., 18, dense fog, moderate sea, temperature 52°.

New South Wales.—Menindie, E., 14, fine, temperature 62°; Wentworth, W., 14, threatening, temperature 56.; Deniliquin, calm, raining, temperature 60°; Eden, N.E., 14, fine, smooth sea, temperature 59°; Moruya, N.E., 28, cloudy and gloomy, smooth sea, temperature 59°; Cape St. George, calm, cloudy, smooth sea, temperature 61; Sydney, W.N.W., 2, overcast and gloomy, smooth sea, temperature 56°; Newcastle, S., 14, dull, smooth sea, temperature 58°; Port Macquarie, calm, cloudy and dull, smooth sea, temperature 61°; Clarence River, calm, raining, smooth sea, temperature 63°; Walgett, S.E., 14, cloudy, temperature 61°; Dubbo, N.E., 14, showery, temperature 61°.

STATE OF RIVERS.

Barwon, 32 feet above summer level; Brewarrina, 38 feet 6 inches above summer level; Godooga, 4 feet 8 inches above summer level; Gundagai, summer level; Louth, 26 feet 11 inches above summer level; Mogil Mogil, 22 feet above summer level; Mungindi, 21 feet 4 inches above summer level; Namoi, low; Tilpa, 31 feet 5 inches above summer level; Murrumbidgee: At Wagga, 6 inches above summer level; at Hay, summer level; at Balranald, summer level. Murray: At Albury, 9 inches above summer level; at Euston, 1 foot 3 inches above summer level. Darling: At Wentworth, 6 feet 9 inches above summer level; at Pooncarie, 18 feet 3 inches above summer level; at Menindie, 20 feet 10 inches above summer level; at Wilcannia, 29 feet 4 inches above summer level; at Bourke, 32 feet 4 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 20.

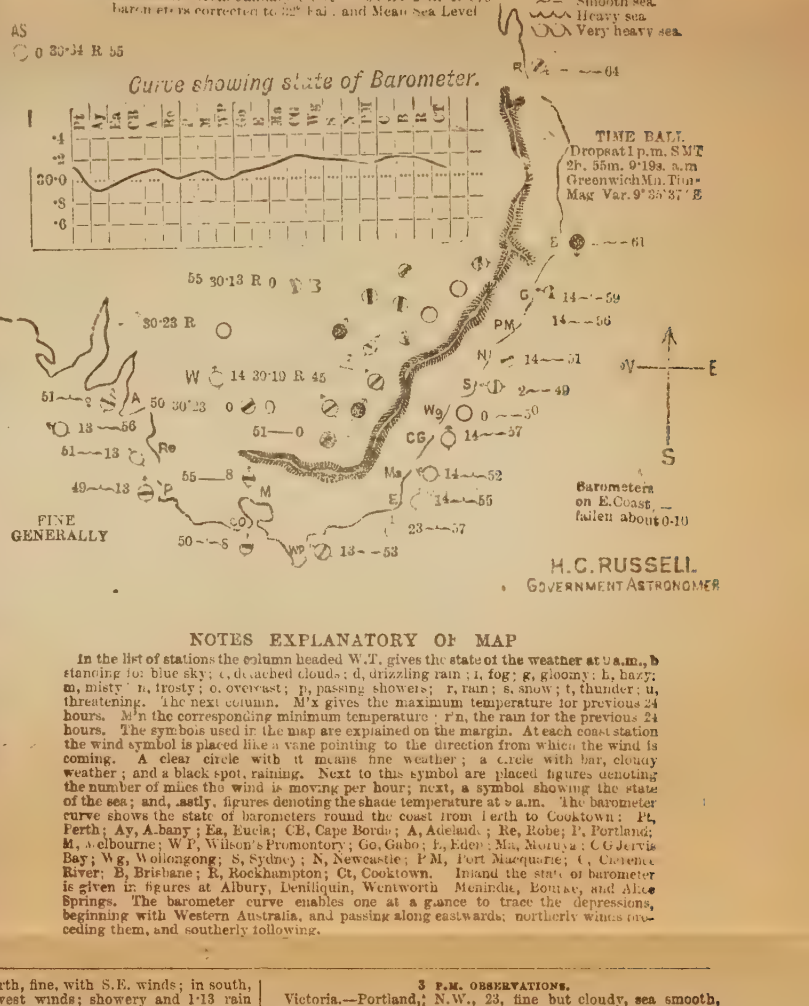
Sun rises at 7.2, sets at 5.10; Moon, 9.9 p.m., 9.4 a.m.; Mercury, 8.27 a.m., 7.9 p.m.; Venus, 4.41 a.m., 2.41 p.m.; Mars, 10.34 a.m., 11.0 p.m.; Jupiter, 10.18 a.m., 10.16 p.m.; Saturn, 6.8 a.m., 4.4 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 20: 10.40 a.m., 10.57 p.m.

Armidale	c	50	46	0·16
Balranald	b	67	35	0·08
Bathurst	f	52	43	0·13
Bend'm'r	g	52	46	0·15
Bodalla ..	b	70	42	0·06
Bourke ..	f	70	55	0
Bundarra	c	56	47	0
C'md'n H	b	62	53	0
C. St. Geo	b	66	48	0
Carcoar ..	g	52	46	0·15
Casino ..	r	65	55	0·17
Cassilis ..	b	54	51	0·28
Clarence	g	65	58	0·32
C'nd'b'lin	u	60	39	0·03
Cooma ..	c	62	38	0
Coonab'n	c	56	51	0·26
Cowra ..	u	64	31	0·19
Deniliq'n	g	59	46	0·13
Dubbo ..	r	59	50	0·24
Eden	b	62	50	0
Euston ..	b	73	34	0·15
Forbes ..	r	65	40	0·30
Gl'n Inn's	b	50	46	0
Goulburn	g	59	40	0·04
Grafton ..	u	77	67	0·14
Gulgong	u	54	44	0·07
Gunned'h	o	59	54	0·24
Hay	f	63	46	0·14
Inverell ..	b	57	46	0·16
Kiandra	n	53	28	0·60
Lismore	r	64	44	0·15
Maitland	f	60	53	0·09
Marsdens	g	59	53	0·16
Menindie	b	65	48	0
Molong ..	r	55	44	0·20
M'r'ng'r'll	g	57	53	0·31
Moree ..	c	58	49	0·42
Moruya ..	b	66	43	0
Moss Vale	b	53	44	0
Mt. Hope	g	62	53	0·15
M. Vict'ria	b	51	40	0·10
Mudgee ..	f	57	44	0·07
M'rr'm'bh	r	60	46	0·30
M'rr'ndi	r	54	47	0·37
Mus'lbr'k	g	65	49	0·19
Narrabri	c	62	41	0·18
Newcastle	f	61	49	0·02
Orange ..	g	51	42	0·27
Picton ..	b	58	43	0·01
P. M'q'rie	b	63	53	0
P. St'ph'n	—	—	—	—
Q'nbeyan	r	54	46	0·06
Quirindi	f	66	42	0·24
Singleton	g	56	53	0·20
SYDNEY ..	f	57	49	0·05
Tamw'rth	f	55	49	0·20
Taralga ..	g	65	47	0
Taree	b	67	53	0·01
T'nt'rfield	c	61	52	0·52
Wagga ..	c	58	42	0·47
Walcha ..	g	50	42	0·14
Walgett ..	g	61	51	0
Warrah ..	b	56	42	0·30
W'ntw'rth	b	65	42	0·36
Wilcannia	b	—	—	0
W'll'ng'ng	b	62	51	0
Young ..	g	70	50	0·17

Average Annual Rainfall for 27 years..... 49·865
Average for 5 years from Jan. 1st to JUNE 30th 30·808
Total Rainfall from January 1st to JULY 20th 18·876
Barometers corrected to 32° Fah., and Mean Sea Level

T. storm, wind S, wind W
If it is CALM, the symbol is used without the arrow
Smooth sea.
Heavy sea.
Very heavy sea.



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CE, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In north, fine, with S.E. winds; in south, cloudy and gloomy, with west winds; showery and 1·13 rain fallen at Perth. Extremes of barometers and temperature: Esperance Bay, 29·84 and 46°; Carnarvon, 30·15 and 70°.

South Australia.—Generally fine inland; scattered clouds on and near the coast, with light northerly winds and calm, fallen barometers and moderate sea. A few points of rain fallen in places along the coast. Extremes of barometers and temperature: Adelaide, 30·11 and 51°; M'Donnell Bay, 29·99, and Cape Borda, 56°.

Victoria.—Generally cloudy and gloomy, with light northerly winds, fallen barometers, and moderate sea; squally at Wilson's Promontory, misty at Cape Otway. Rainfall: Portland, 0·45; Cape Otway, 0·10. Extremes of barometers and temperature: Ballarat, 30·09 and 48°; Portland, 29·98; and Cape Schanck, 55°.

Tasmania.—Generally cloudy and gloomy, with light easterly winds and rough sea; raining at Circular Head, foggy at Hobart, and frosty at Southport. Extremes of barometers and temperature: Hobart, 30·04; Falmouth, 29·93 and 55°; and Southport, 37°.

New Zealand.—Generally fine, with strong south winds or calms, and barometers standing at 30·4.

New South Wales.—Generally unsettled, with light southerly winds on coast, variable winds and calm inland, fallen barometers, mild temperature, and smooth sea. Raining at some stations along the western slope of the mountains, and much fog and mist in places from Sydney to Newcastle. Light rain fallen generally in the central and east territorial divisions. The heaviest fall took place at Albury, where 63 points fell. Extremes of barometers and temperature at 9 a.m.: Deniliquin, 30·23; Forbes, 30·06; Clarence, 59°; and Cooma, 37°. Extra Stations: Rainfall, Hill End, 0·15; Temora, 0·72. For further particulars see map.)

Queensland.—Generally cloudy and gloomy, with southerly winds and calms, fallen barometers, and moderate sea. Rainfall: Brisbane, 0·11; Cape Moreton, 0·43; Rockhampton, 2·18. Extremes of barometers and temperature: Rockhampton, 30·16; Brisbane, 61°; Townsville, 29·83; and Cooktown, 75°.

3 P.M. OBSERVATIONS.

Victoria.—Portland,; N.W., 23, fine but cloudy, sea smooth, temperature 59°; Cape Otway, N.W., 8, fine and misty, sea moderate, temperature 60°; Melbourne, W.N.W.., 13, fine but cloudy, temperature 63°; Wilson's Promontory, W., 13, fine, sea smooth, temperature 59°.

New South Wales.—Menindie, calm, fine, temperature 62°; Wentworth, N.W., 14, fine and clear, temperature 57°; Deniliquin, calm, fine, temperature 63°; Eden, N.E., 14, fine, sea smooth, temperature 60°; Moruya, N.E., 14, fine, temperature 62°; Cape St. George, calm, fine, sea smooth, temperature 65°; Sydney, N.E., 5, fine, sea smooth, temperature 61°; Newcastle, N.W., 17, fine, sea smooth, temperature 66°; Port Macquarie, S.E., fine, sea smooth, temperature 70°; Clarence River, S.W., 14, fine, sea smooth, temperature 67°; Walgett, S.W., fine, temperature 67°; Dubbo, N.E., 28, fine, temperature 62°; Goulburn, N.W., 14, fine, temperature, 59°.

STATE OF RIVERS.

Barwon, 31 feet 6 inches above summer level; Brewarrina, 38 feet above summer level; Godooga, 5 feet above summer level; Gundagai, summer level; Louth, 27 feet 3 inches above summer level; Mogil Mogil, 20 feet 6 inches above summer level; Mungindi, 21 feet above summer level; Namoi, low; Tilpa, 31 feet 8 inches above summer level. Murrumbidgee: At Wagga, 10 inches above summer level; at Hay, below summer level; at Balranald, summer level. Murray: At Albury, 10 inches above summer level; at Euston, 1 foot 1 inch above summer level. Darling: At Wentworth, 6 feet 10 inches above summer level; at Pooncarie, 18 feet 8 inches above summer level; at Menindie, 21 feet above summer level; at Wilcannia, 29 feet 5 inches above summer level; at Bourke, 32 feet 9 inches above summer level.

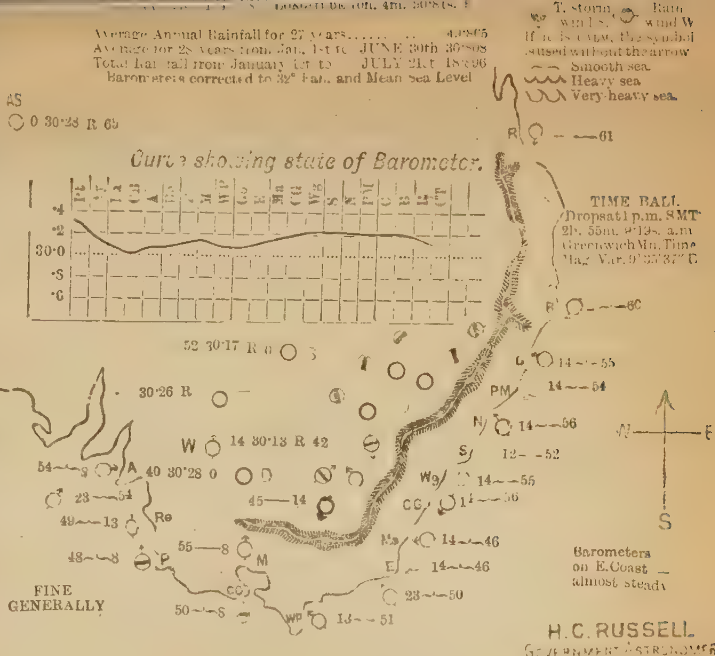
ASTRONOMICAL MEMORANDA FOR JULY 21.

Sun rises at 7.1, sets at 5.11; Moon, 10.2 p.m., 9.37 a.m.; Mercury, 8.26 a.m., 7.20 p.m.; Venus, 4.43 a.m., 2.41 p.m.; Mars, 10.32 a.m., 10.58 p.m.; Jupiter, 10.14 a.m., 10.12 p.m.; Saturn, 6.5 a.m., 4.1 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 21: 11.14 a.m., 11.31 p.m.

Average Annual Rainfall for 27 years .... 49·865
Average for 28 years from Jan. 1st to JUNE 30th 30·808
Total Rainfall from January 1st to JULY 21st 18·396
Barometers corrected to 32° Fah. and Mean Sea Level

Armidale	b	50	42	0
Balranald	b	80	36	0
Bathurst	f	61	35	0
Bend'm'r	c	60	44	0·02
Bodalla	b	73	35	0
Bourke	b	71	45	0
Bundarra	g	64	34	0
C'md'n H	b	66	52	0
C.St.Geo	b	67	48	0
Carcoar	n	55	33	0·01
Casino	b	70	52	0·08
Cassilis	b	60	41	0
Clarence	b	71	55	0
C'nd'b'lin	b	63	33	0
Cooma	n	63	23	0·07
Coonab'n	n	68	33	0·03
Cowra	f	63	32	0
Deniliq'n	b	66	35	0
Dubbo	f	67	33	0·03
Eden	b	61	44	0
Euston	b	75	30	0
Forbes	b	66	41	0
Gl'n Inn's	f	60	39	0
Goulburn	f	61	38	0
Grafton	b	74	49	0
Gulgong	f	60	33	0
Gunned'h	f	66	46	0·04
Hay	b	68	41	0
Inverell	f	63	38	0
Kiandra	n	44	22	0·37
Lismore	b	79	47	0
Maitland	b	64	49	0
Marsdens	f	65	41	0
Menindie	b	63	46	0
Molong	b	65	35	0
M'r'ng'r'll	b	67	37	0
Moree	f	72	47	0
Moruya	b	67	41	0
Moss Vale	n	56	39	0
Mt. Hope	b	62	49	0
M. Vict'ria	b	52	36	0
Mudgee	f	56	33	0
M'rr'm'bh	b	56	36	0·05
M'rr'r'ndi	b	69	43	0·03
Mus'lb'r'k	f	64	37	0
Narrabri	f	62	42	0
Newcastle	b	69	50	0
Orange	n	55	32	0
Picton	b	64	40	0
P. M'q'rie	b	67	49	0
P. St'ph'n	n	66	46	0
Q'nbeyan	n	57	36	0·03
Quirindi	f	69	39	0·04
Singleton	b	50	47	0
SYDNEY	b	63	49	0·02
Tamw'rth	g	65	48	0·10
Taralga	n	61	30	0
Taree	b	70	50	0
T'nt'rfield	f	66	46	0
Wagga	c	63	38	0
Walcha	o	55	37	0
Walgett	f	67	44	0
Warrah	f	57	40	0
W'ntw'rth	b	66	38	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	67	51	0
Young	f	77	37	0·02



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light S.E. winds and risen barometers; sea smooth on west coast, but rough in south. Rainfall: Geraldton, 0·10; Perth, 0·04; Albany, 1·61; and Esperance Bay, 0·55; squally from S.E. at Albany. Extremes of barometers and temperature: Geraldton, 30·35; Esperance Bay, 29·94; Carnarvon, 73·; and Perth, 38·.

South Australia.—Cloudy, gloomy, and threatening rain between Gawler and Alice Springs, and over York's Peninsula; fine in neighbourhood of Adelaide and Mount Lofty Ranges, and scattered clouds on coast and in S.E.; thunderstorm at Cowell; winds light from N. to N.E., and sea moderate. Extremes of barometers and temperature on coast: M'Donnell Bay, 30·07 and 46·; Cape Borda, 30·00 and 54·.

Victoria.—Generally cloudy and gloomy, with light N.E. to N.W. winds and smooth sea; foggy and misty, rain inland; misty, squally, and a few points of rain fallen along the coast. Extremes of barometers and temperature: Omeo, 30·24; Echuca, 42·; Portland, 30·10; and Melbourne 55·.

Tasmania.—Generally cloudy, with light variable winds and calms, fallen barometers, and smooth sea. Rainfall, extremes of barometers and temperature: –Low Heads, 30·08, 49·, and 0·47; Southport, 30·01 and 0·40; Hobart, 41· and 0·24.

New Zealand.—Generally fine, with westerly winds and calms, and barometers at 30.3. Light rain in south parts.

New South Wales.—Generally fine and clear, with south to west winds on coast, calms inland, almost steady barometers, mild temperature, and smooth sea. Frosty on and near range south of Orange. Dense fog reported from 18 stations scattered along and west of the range, from Tenterfield in north to Goulburn in south, and Walgett, Dubbo, and Marsdens in west: and light rain fallen at 16 stations in coast and mountain districts, principally on western slope of mountains, but heaviest at Kiandra. Extremes of barometers and temperature at 9 a.m.: Hay, 30·29; Port Macquarie, 30·12; Lismore, 58·; and Kiandra, 32·. Extra stations: Nowra, max. 69·, min. 44·, and fine; Brewarrina, max. 67·, min. 34·, and fine. Camden: Rainfall, 0·25. For further particulars see map.

Queensland.—In south fine, in north cloudy and gloomy. Winds from S.E. to S.W., and sea moderate. Rainfall at Rockhampton, 0·02. Extremes of barometers and temperature: Brisbane, 30·21 and 60·; Cape Moreton, 30·09; and Cooktown, 78·.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.E., 13, fine but cloudy, sea smooth, temperature 60·; Cape Otway, calm, fine and misty, sea smooth, temperature 58·; Melbourne, N., 13, fine but cloudy, sea smooth, temperature 63·; Cape Schanck, W.N.W., 8, fine but cloudy, sea smooth, temperature 57·; Wilson's Promontory, W., 13, fine but cloudy, sea smooth, temperature 58·.

New South Wales.—Menindie, calm, dull, like rain, temperature 59·; Wentworth, N., 14, dull and cloudy, temperature 56·; Deniliquin, calm, fine, temperature 65·; Eden, S.W., 14, fine, sea smooth, temperature 62·; Moruya, N.E., 14, fine, sea smooth, temperature 62·; Cape St. George, S.S.W., 14, fine, sea smooth, temperature 63·; Sydney, S.S.E., 8, fine, sea smooth, temperature 61·; Newcastle, S.W., 14, fine, sea smooth, temperature 64·; Port Macquarie, S., 28, fine, sea smooth, temperature 48·; Walgett, S.E., fine and clear, temperature 65·; Dubbo, N., 14, fine, temperature 58·; Goulburn, N.W., 14, fine, temperature 57·.

STATE OF RIVERS.

Barwon, 31 feet above summer level; Brewarrina, 37 feet above summer level; Goodooga, 4 feet 8 inches above summer level; Gundagai, summer level; Louth, 27 feet 9 inches above summer level; Mogil Mogil, 2 feet above summer level; Mungindi, 20 feet 10 inches above summer level; Namoi, low; Tilpa, 31 feet 11 inches above summer level. Murrumbidgee: At Wagga, 10 inches above summer level; at Hay, below summer level; at Balranald, summer level. Murray: At Albury, 9 inches above summer level; at Euston, 1 foot 1 inch above summer level. Darling: At Wentworth, 6 feet 10 inches above summer level; at Pooncarie, 18 feet 9 inches above summer level; at Menindie, 21 feet 1 inch above summer level; at Wilcannia, 29 feet 6 inches above summer level; at Bourke, 33 feet 3 inches above summer level.

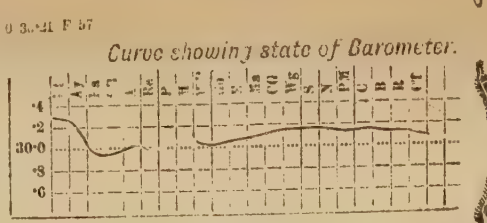
ASTRONOMICAL MEMORANDA FOR JULY 22.

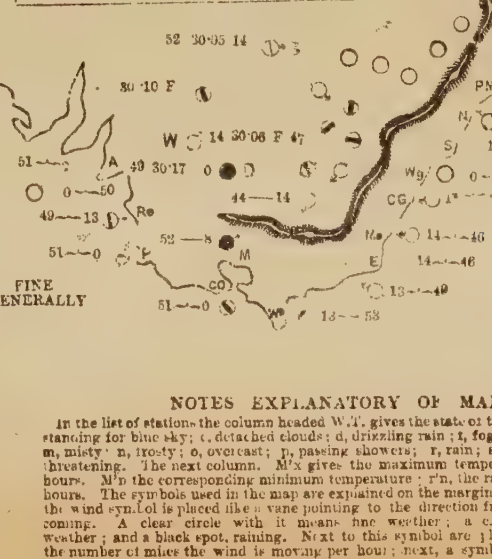
Sun rises at 7.1, sets at 5.12; Moon, 10.56 p.m., 10.9 a.m.; Mercury, 8.23 a.m., 7.29 p.m.; Venus, 4.44 a.m., 2.42 p.m.; Mars, 10.30 a.m., 10.57 p.m.; Jupiter, 10.10 a.m., 10.9 p.m.; Saturn, 6.2 a.m., 3.58 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

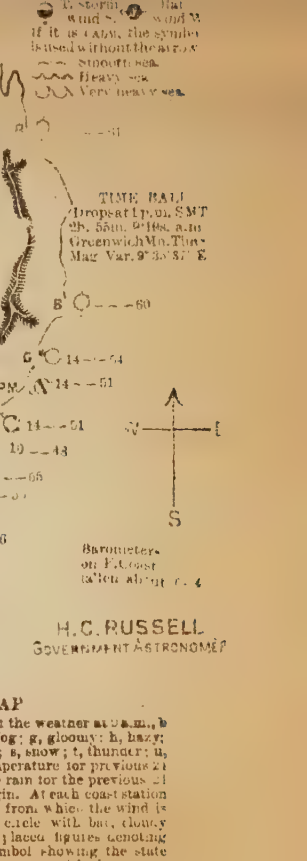
High water at Fort Denison, July 22: 11.48 a.m.; — p.m.

Armidale	a	59 36	0	
Balranald	g	77 31	0	
Bathurst	b	56 31	0	
Bend'm'r	f	61 25	0	
Bodalla ..	b	73 32	0	
Bourke ..	c	71 49	0	
Bundarra	b	67 40	0	
C'md'n H	b	67 46	0	
C.St.Geo	b	60 39	0	
Carcoar	b	59 37	0	
Casino ..	b	75 46	0	
Cassilis .	b	52 37	0	
Clarence	b	73 58	0	
C'nd'b'lin	g	64 34	0	
Cooma ..	a	64 24	0	
Coonab'n	b	63 31	0	
Cowra ..	n	60 31	0	
Deniliq'n	r	70 36	0·06	
Dubbo ..	b	65 35	0	
Eden	b	61 46	0	
Euston ..	b	78 32	0	
Forbes ..	g	65 39	0	
Gl'n Inn's	c	64 36	0	
Goulburn	b	58 27	0	
Grafton ..	f	75 48	0	
Gulgong	b	56 31	0	
Gunned'h	b	66 42	0	
Hay	g	69 41	0·04	
Inverell ..	b	61 37	0	
Kiandra	u	45 28	0	
Lismore	b	78 50	0	
Maitland	b	61 40	0	
Marsdens	c	65 42	0	
Menindie	g	62 50	0	
Molong ..	c	66 34	0	
M'r'ng'r'll	b	66 39	0	
Moree ..	b	73 43	0	
Moruya ..	b	66 40	0	
Moss Vale	n	53 35	0	
Mt. Hope	g	66 49	0	
M. Vict'ria	b	51 37	0	
Mudgee ..	n	54 29	0	
M'rr'm'bh	c	61 36	0	
M'rr'r'ndi	b	57 36	0	
Mus'lbr'k	b	62 31	0	
Narrabri	h	65 38	0	
Newcastle	b	68 44	0	
Orange ..	c	51 32	0	
Picton ..	n	62 33	0	
P. M'q'rie	c	66 45	0	
P. St'ph'n	n	62 40	0	
Q'nbeyan	b	53 36	0	
Quirindi	b	69 40	0	
Singleton	n	61 51	0	
SYDNEY ..	h	63 46	0·01	
Tamw'rth	n	63 39	0	
Taralga ..	n	69 34	0	
Taree	h	64 47	0	
T'nt'rfield	f	65 50	0	
Wagga ..	c	61 38	0	
Walcha ..	f	58 33	0	
Walgett..	b	63 42	0	
Warrah ..	b	62 31	0	
W'ntw'rth	b	66 38	0·03	
Wilcannia	b	— —	0	
W'll'ng'ng	b	67 45	0	
Young ..	g	80 36	0	

Average Annual Rainfall for 27 years..... 49·265
Average for 28 years from Jar. 1st to JUNE 30th 30·908
Total Rainfall from January 1st to JULY 22nd 18·904
Barometers corrected to 32° Fah. and Mean Sea Level







NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x, gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: P, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Wilcannia Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; southerly winds preceding them, and southerly following.

Western Australia.—On west coast fine, with light E. to S.E. winds and calms, risen barometers, and smooth sea. On south coast showery and light rain, with fresh east winds and rough sea. Rainfall: Esperance Bay, 0·20; Albany, 0·04. Extremes of barometers and temperature: Albany and Geraldton, 30·32; Cossack, 30·03; Carnarvon, 73°; and Perth, 44°.

South Australia.—Generally more or less cloudy. Fine between Port Wakefield and Hawker, and unsettled on and near the coast. Light rain recorded south of Quorn, greatest at Elliston and Bordertown, with 42 and 41 points respectively; showery at MacDonnell Bay. Winds light from N. to E., and sea smooth. Extremes of barometers and temperature: On coast—MacDonnell Bay, 30·02 and 48°; Eucla, 29·97 and 54°. In Northern Territory—Daly Waters, 30·04 and 78°; Port Darwin, 29·95 and 76°.

Victoria.—Generally cloudy and threatening, with light north to east winds, fallen barometer, and smooth sea; showery at Melbourne; squally at Wilson's Promontory; misty at Cape Schanck. Light rain fallen generally, having been heaviest at Hamilton, where 22 points fell. Extremes of barometers and temperature: Cape Schanck, 30·10 and 56°; Wilson's Promontory, 30·01; and Omeo, 41°.

Tasmania.—Generally fine in north, cloudy in south, with light variable winds and calms, fallen barometers, and smooth seas. Rainfall: Southport, 0·10; Circular Heads, 0·12. Extremes of barometers and temperature:—Low Heads, 30·03; Hobart, 29·92 and 44°; and Falmouth, 50°.

New Zealand.—Misty, rain, with S.E. wind in extreme north; in south, fine, with north wind and calm. Barometers: Russell and Bluff, 30·2; Wellington, 30·3.

New South Wales.—Generally fine, with light variable winds and calms, slightly fallen barometers and temperature, and smooth sea. In S.W. parts cloudy and threatening rain, and light rain fallen at a few stations along the Murray River. Frosty, with fog, along the range; showery at Deniliquin. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·18; Eden, 30·06; Cape St. George and Wollongong, 55°, and Cooma, 28°. Extra stations: Nowra, max. 66°, min. 41°, fine and clear. (For further particulars see map.)

Queensland.—Generally fine, with south to S.E. winds, fallen barometers, and moderate sea; threatening rain at Cooktown. Extremes of barometers and temperature: Rockhampton, 30·1 Brisbane, 60°; Townsville, 29·83; and Cooktown, 78°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, SE., 28, cloudy, sea smooth, temperature 55°; Cape Otway, E.S.E., 23, fine but cloudy, sea smooth, temperature 53°; Melbourne, N.W., 8, fine, temperature 63°; Cape Schanck, S., 14, fine but cloudy, sea smooth, temperature 57°; Wilson's Promontory, S.W., 13, fine but cloudy, sea smooth, temperature 57°.

New South Wales.—Wentworth, N., cloudy, temperature 56°; Deniliquin, calm, dull, temperature 50°; Eden, N.E., 14, fine, sea smooth, temperature 59°; Moruya, N.E., 14, fine, sea smooth, temperature 62°; Cape St. George, W.N.W., 14, fine, sea smooth, temperature 64°; Sydney, N.W., 3, fine, sea smooth, temperature 61°; Newcastle, N.W., 14, fine, sea smooth, temperature 65°; Port Macquarie, S.E., 14, fine, sea smooth, temperature 68°; Clarence River, calm, fine, temperature 69°; Walgett, calm, cloudy, temperature 63°; Dubbo, W., fine, temperature 58°; Goulburn, calm, fine, temperature 57°.

STATE OF RIVERS.

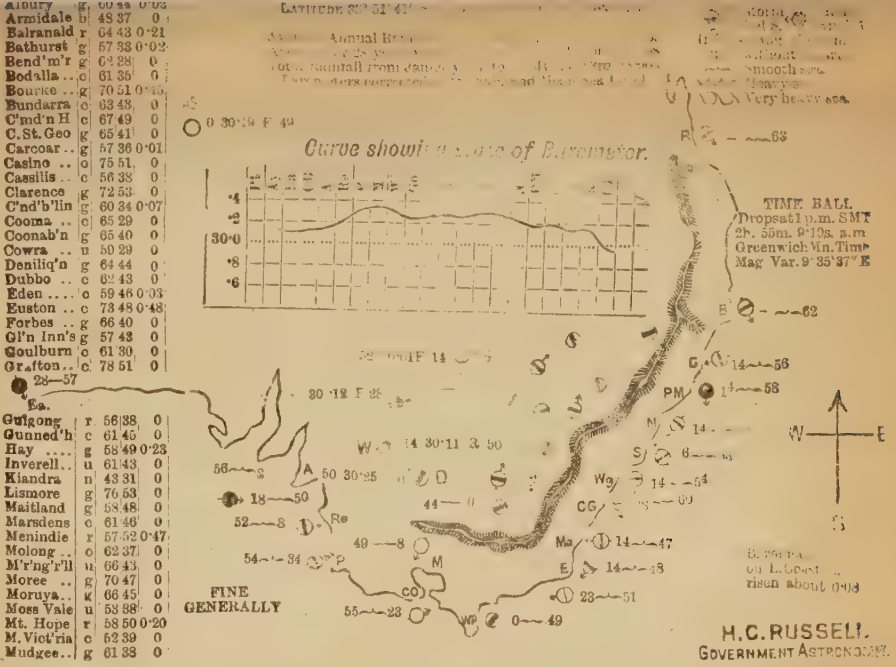
Barwon, 30 feet above summer level; Brewarrina, 36 feet 6 inches above summer level; Goodooga, 4 feet 7 inches above summer level; Gundagai, summer level; Louth, 28 feet 3 inches above summer level; Mogil Mogil, 19 feet 9 inches above summer level; Mungindi, 20 feet 6 inches above summer level; Namoi, low; Tilpa, 32 feet 3 inches above summer level. Murrumbidgee: At Wagga, 1 foot above summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, 7 inches above summer level; at Euston, 1 foot above summer level. Darling: At Wentworth, 6 feet 10 inches above summer level; at Pooncarie, 18 feet 10 inches above summer level; at Menindie, 21 feet 2 inches above summer level; at Wilcannia, 29 feet 6 inches above summer level; at Bourke, 33 feet 8 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 23.

Sun rises at 7, sets at 5.12; Moon, 11.50 p.m., 10.42 a.m.; Mercury, 8.20 a.m., 7.20 p.m.; Venus, 4.46 a.m., 2.43 p.m.; Mars, 10.28 a.m., 10.56 p.m.; Jupiter, 10.7 a.m., 10.6 p.m.; Saturn, 5.58 a.m., 3.55 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 23: 12.6 a.m.; 12.25 p.m.

Albury	g	60 42	0	0·02
Armidale	b	48 37	0	
Balranald	r	64 43	0	0·21
Bathurst	g	57 33	0	0·02
Bend'm'r	g	62 28	0	
Bodalla	c	61 35	0	
Bourke	g	70 51	0	0·15
Bundarra	c	63 43	0	
C'md'n H	c	67 49	0	
C. St. Geo	g	65 41	0	
Carcoar	g	57 36	0	0·01
Casino	o	75 51	0	
Cassilis	c	56 38	0	
Clarence	g	72 53	0	
C'nd'b'lin	g	60 34	0	0·07
Cooma	c	65 29	0	
Coonab'n	g	65 40	0	
Cowra	u	59 29	0	
Deniliq'n	g	64 44	0	
Dubbo	c	62 43	0	
Eden	o	59 46	0	0·03
Euston	c	73 48	0	0·48
Forbes	g	66 40	0	
Gl'n Inn's	g	57 43	0	
Goulburn	c	61 30	0	
Grafton	c	78 51	0	
Gulgong	r	56 38	0	
Gunned'h	c	61 45	0	
Hay	g	58 49	0	0·23
Inverell	u	61 43	0	
Kiandra	n	43 31	0	
Lismore	g	76 53	0	
Maitland	g	58 48	0	
Marsdens	c	61 46	0	
Menindie	r	57 52	0	0·47
Molong	o	62 37	0	
M'r'ng'r'll	u	66 43	0	
Moree	g	70 47	0	
Moruya	g	66 45	0	
Moss Vale	u	53 38	0	
Mt. Hope	r	58 50	0	0·20
M. Vict'ria	c	62 39	0	
Mudgee	g	61 38	0	
M'rr'm'bh	c	63 37	0	
M'rr'ndi	c	57 40	0	
Mus'br'k	g	62 36	0	
Narrabri	g	65 36	0	
Newcastle	c	69 49	0	0·04
Orange	c	52 34	0	0·04
Picton	g	60 34	0	
P. M'q'rie	r	66 49	0	
P. St'ph'n	c	63 46	0	
Q'nbeyan	g	54 37	0	
Quirindi	c	66 38	0	
Singleton	c	61 47	0	
SYDNEY	o	62 50	0	
Tamw'rth	g	65 35	0	
Taralga	g	66 30	0	
Taree	c	70 49	0	
T'nt'rfield	c	65 52	0	
Wagga	g	61 40	0	0·01
Walcha	g	57 39	0	
Walgett	g	65 47	0	
Warrah	n	63 39	0	
W'ntw'rth	r	67 46	0	0·30
Wilcannia	r	— —	0	
W'll'ng'ng	c	68 47	0	
Young	g	75 43	0	



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Western Australia.—In north fine, with light easterly winds; in south cloudy and calm; sea moderate. Rainfall: Albany, 0·04; and Esperance Bay, 0·03. Extremes of barometers and temperature: Esperance Bay, 30·25 and 46°; Cossack, 30·04; and Carnarvon, 69°.

South Australia.—Generally cloudy, in places light rain; foggy and gloomy south of Burra, and fine to Port Darwin; light rain fallen on and near the coast, greatest at Mount Gambier and Macdonnell Bay, at which places 1·02 and 0·77 were recorded. Raining steadily at Cape Borda. Extremes of barometers and temperature: On coast—Macdonnell Bay, 30·19; Cape Borda, 50°; Streaky Bay, 29·97; and Eucla, 57°.

Victoria.—Generally cloudy, with fresh east winds, risen barometer, and smooth sea; squally at Hamilton, misty at Cape Schanck, and a few points of rain fallen in west and S.W. parts. Extremes of barometers and temperature: Cape Otway, 30·35; Echuca, 30·21; Horsham, 57°; and Omeo, 37°.

Tasmania.—Generally fine, with light south winds, risen barometers, and moderate sea; misty and 7 points rain fallen at Hobart. Extremes of barometers and temperature: Southport, 30·39; Circular Heads, 30·31 and 43°; and Falmouth, 48°.

New Zealand.—Gloomy in extreme north, with east wind; fine in south, with north winds. Barometers: Russell, 30·2; Wellington, 30·1; and Bluff, 29·7.

New South Wales.—Cloudy, gloomy, and threatening rain throughout the colony, with light rain in S.W. and west parts. Inland, light easterly winds and calms. On coast, southerly winds. Barometers generally have risen slightly, temperature keeping mild and sea smooth. Light rain fallen at 16 stations, principally in S.W. parts, and heaviest at Menindie and Euston, at which places nearly half an inch fell. During the night strong southerly squalls passed over Tamworth. Extremes of barometers and temperature at 9 a.m.:—Wollongong, 30·26; Bourke, 30·01; Cape St. George, 60°; and Cooma, 32. Extra stations.—Brewarrina, maximum 59, minimum 42, rainfall 0·21, and overcast; Nowra, maximum 67, minimum 44, and cloudy; Hill End, rainfall 0·04, and cloudy. For further particulars see map.

Queensland.—Generally cloudy and gloomy, with fallen barometers, S.E. winds, and moderate sea. No rain fallen. Extremes of barometers and temperature:—Rockhampton, 30·14; Townsville, 29·77; Brisbane and Cape Moreton, 62°: Cooktown, 74°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.S.E., 34, fine, but cloudy, sea smooth, temperature 54°; Cape Otway, S.E., 28, fine and misty, sea moderate, temperature 49°; Melbourne, S.E., 18, fine, temperature 54°; Wilson's Promontory, E., 28, cloudy and squally, sea moderate, temperature 51°.

New South Wales.—Menindie, E., 28, showery, temperature 60°; Wentworth, E.S.E., 28, showery all day, temperature 50°; Deniliquin, S.E., dull, temperature 58°; Eden, S.W., 14, cloudy, sea smooth, temperature 58°; Cape St. George, S.S.E., 28, cloudy, sea smooth, temperature 60°; Sydney, S., 10, overcast and gloomy, sea smooth, temperature 61°; Newcastle, S.S.E., 14, dull, sea smooth, temperature 63°; Port Macquarie, E., 14, showery, sea smooth, temperature 65°; Clarence River, E., raining, smooth sea, temperature 64°; Walgett, N.E., raining since 9 a.m., temperature 58°; Dubbo, E., 14, raining and overcast, temperature 60°; Goulburn, E., dull, temperature 56°.

STATE OF RIVERS.

Barwon, 28 feet 10 inches above summer level; Brewarrina, 33 feet above summer level; Goodooga, 4 feet 5 inches above summer level; Gundagai, summer level; Louth, 28 feet 9 inches above summer level; Mungindi, 20 feet above summer level; Namoi, low; Tilpa, 32 feet above summer level. Murrumbidgee: At Wagga, 1 foot 1 inch above summer level; at Hay, below summer level; at Balranald, below summer level. Murray: At Albury, 10 inches above summer level; at Euston, 1 foot 1 inch above summer level. Darling: At Wentworth, 6 feet 10 inches above summer level; at Pooncarie, 18 feet 11 inches above summer level; at Menindie, 21 feet 3 inches above summer level; at Wilcannia, 29 feet 6 inches above summer level; at Bourke, 33 feet 7 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 24.

Sun rises at 6.59, sets at 5.15; Moon, — p.m., 11.16 a.m.; Mercury, 8.17 a.m., 7.20 p.m.; Venus, 4.47 a.m., 2.44 p.m.; Mars, 10.26 a.m., 10.53 p.m.; Jupiter, 10.3 a.m., 10.2 p.m.; Saturn, 5.55 a.m., 3.52 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

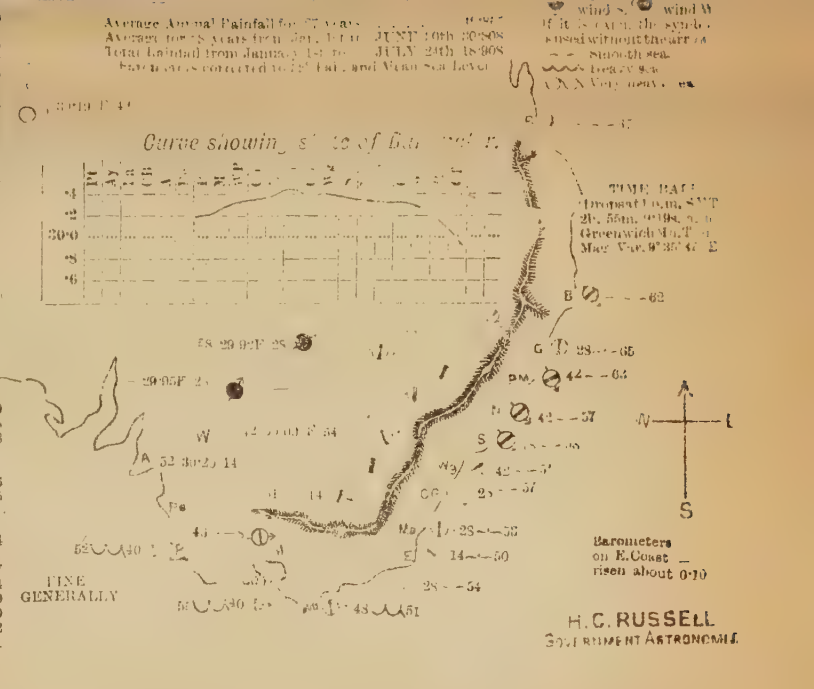
High water at Fort Denison, July 24: 12.45 a.m.; 1.5 p.m.

Armidale ..	r	50	34	0
Balranald	r	60	42	0·70
Bathurst	g,	55	44	0
Bend'm'r	g,	60	48	0·09
Bodalla ..	r	64	42	0·07
Bourke ..	r	67	52	1·10
Bundarra	c	50	33	0
C'mdn H	c	62	50	0·39
C. St. Geo	c	65	44	0
Carcoar ..	g,	57	41	0
Casino ..	g,	68	55	0·18
Cassilis ..	r,	54	40	0·05
Clarence	c	67	55	0·
C'nd'b'lin	g,	53	35	0·08
Cooma ..	c	55	36	0·02
Coonab'n	g	58	40	0·45
Cowra ..	g	61	50	0
Deniliq'n	g	68	47	0·02
Dubbo ..		—	—	—
Eden	g	57	48	0·03
Euston ..	g	70	47	0
Forbes ..	c	67	52	0·08
Gl'n Inn's	c	57	47	0
Goulburn	g	54	37	0·04
Gr..fton..	g,	77	55	0·16

28—57

Ea.

Gulgong	c	55	44	0·09
Gunned'h	c	59	54	0·08
Hay	g	56	49	0·28
Inverell..	o	62	51	0
Kiandra	r	40	32	0
Lismore	r	71	55	0·16
Maitland	g	66	52	0·05
Marsdens	c	60	51	0
Menindie	r	59	52	0
Molong ..	o	52	48	0·04
M'r'ng'r'll	g	57	49	0
Moree ..	g,	61	54	0·07
Moruya..	r	61	47	0·34
Moss Vale	g	51	45	0·19
Mt. Hope	o	59	51	0·30
M. Vict'ria	r	50	40	0·52
Mudgee..	g	67	45	0·01
M'rr'm'bh	o	51	30	0
M'rr'r'ndi	o,	55	46	0
Mus'br'k	r,	69	35	0·07
Narrabri	g	60	43	0·10
Newcastle	g	64	56	0·21
Orange ..	c	52	43	0·07
Picton ..	u	60	44	0·12
P. M'q'rie	o	65	55	1·15
P. St'ph'n	o	65	52	0·22
Q'nbeyan	g	54	42	0
Quirindi	g	62	43	0·20
Singleton	g,	52	—	0·17
SYDNEY ..	o,	62	54	0
Tamw'rth	-	—	—	-
Taralga ..	o	61	40	0·32
Taree	g	72	56	0·55
T'nt'rfield	g	64	46	0·10
Wagga ..	o	60	40	0
Walcha ..	r,	55	43	0·03
Walgett..	g	59	54	0·55
Warrah ..	g	63	45	0·26
W'ntw'rth	g	55	50	1·11
Wilcannia	r	—	—	0
Wll'ng'ng	o	70	54	0·04
Young ..	g	57	49	0



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b clear or fine; c, cloudy; d, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; o, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the correspondingminimum temperature; R the rainfall for the previous 24 hours. The synoptic chart is the map are explained in the margin. At each constellation the wind symbol is placed there and pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CE, Cape Lorus; A, Adelaide; Re, Robe; P, Portland; M, elbourne; WP, Wilson's Promontory; Go, Gabo; L, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River, S.E., Brisbane; R, Rockhampton; Ct, Cooktown. In and the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Albany, cloudy and gloomy; weather almost calm, and very smooth sea. Barometer, 29·73. Rainfall: 0·20.

South Australia.—Generally cloudy, with steady rain south of Hergott, and light rain recorded. The heaviest falls took place over Mount Lofty ranges, where from 80 points to 1·51 fell; Truro, 1·50; Burra, 1·05; and Endenda, 1·02. Winds generally from S. to E. and N.E. and moderate, and sea smooth. Extremes of barometers and temperature: M'Donnell Bay, 30·20 and 51°; Adelaide, 57°; and Eucla, 30·01.

Victoria.—Generally cloudy and gloomy, with strong east winds and rough sea. Foggy at Melbourne, misty at Wilson's Promontory, and squally at Cape Schanck. Showery at Horsham. Rainfall: Lakes Entrance, 0·10; and Horsham 0·23. Extremes of barometers and temperature: Lakes Entrance, 30·40; Horsham, 30·13 and 56°; Omeo, 44°.

Tasmania.—Generally fine, with light variable winds, risen barometers, and moderate sea. Circular Heads reports: Strong N.E. wind, with misty rain and rough sea. Extremes of barometers and temperature: Hobart, 30·59 and 41°; Circular Heads, 30·45; and Southport, 46°.

New Zealand.—On North Island, passing showers from N.E. and N.W. Fine at Bluff, with S.W. wind. Barometers: Russell and Wellington, 30·0; Bluff, 30·1.

New South Wales.—Generally cloudy, gloomy, and threatening rain, with fresh easterly winds, risen barometers, and moderate sea. Raining more or less heavily at 12 stations, scattered over the colony. Light rain fallen generally—heaviest at Bourke, Port Macquarie, and Wentworth, at which places over an inch was recorded. Newcastle reports stormy weather and sea rising; Clarence, 11 feet of water on the bar at high tide. Extremes of barometers and temperature at 9 a.m.: Moruya and Wollongong 30·41, Bourke 29·92, Clarence 65°, and Kiandra 34°. It will be seen that there has been a marked increase in temperature. (For further particulars see map.)

Queensland.—Generally cloudy and gloomy, with E. to S.E. winds and calm, risen barometers, and moderate sea. Light rain at Townsville; 13 points already fallen. Extremes of barometers and temperature: Brisbane 30·24 and 62°, Cooktown 29·93 and 73°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.N.E., 40, light rain, temperature 54; Cape Otway, E., 42, misty, sea rough, temperature 56; Melbourne, no telegrams; Wilson's Promontory, E.N.E., 48, squally, misty, sea rough, temperature 52.

New South Wales.—Menindie N.E., 28, raining; Wentworth, E.S.E., 14, showery, temperature 54; Deniliquin, calm, showery, temperature 61; Eden, E.N.E., 28, showery, light sea, temperature 55; Moruya, E.N.E., 42, cloudy, smooth sea, temperature 55; Cape St. George, N.W., 14, showery, smooth sea, temperature 59; Sydney, E., 20, showery, little sea, temperature 54; Newcastle, E.S.E., 30, fine, moderate sea temperature 62; Port Macquarie, E., 42, cloudy, moderate sea, temperature 66; Clarence River, S.E., 20, cloudy, smooth sea, temperature 66; Walgett, E.N.E., raining steadily, temperature 59; Dubbo, E., 30, like rain, temperature 60; Goulburn, E., cloudy, temperature 55.

STATE OF RIVERS.

Barwon, 27 feet 8 inches above summer level; Brewarrina, 32 feet above summer level; Goodooga, 4 feet 10 inches above summer level; Gundagai, summer level; Louth, 29 feet 6 inches above summer level; Mogil Mogil, 19 feet above summer level; Mungindi, 20 feet above summer level; Namoi, low; Tilpa, 3? feet 11 inches above summer level. Murrumbidgee: At Wagga, 1 foot 6 inches above summer level; at Hay, summer level; at Balranald, below summer level. Murray: At Albury, 2 feet above summer level; at Euston, 1 foot 2 inch above summer level. Darling: At Wentworth, 6 feet 10 inches above summer level; at Pooncarie, 18 feet 11 inches above summer level; at Menindie, 21 feet 4 inches above summer level; at Wilcannia, 29 feet 8 inches above summer level; at Bourke, 33 feet 9 inches above summer level.

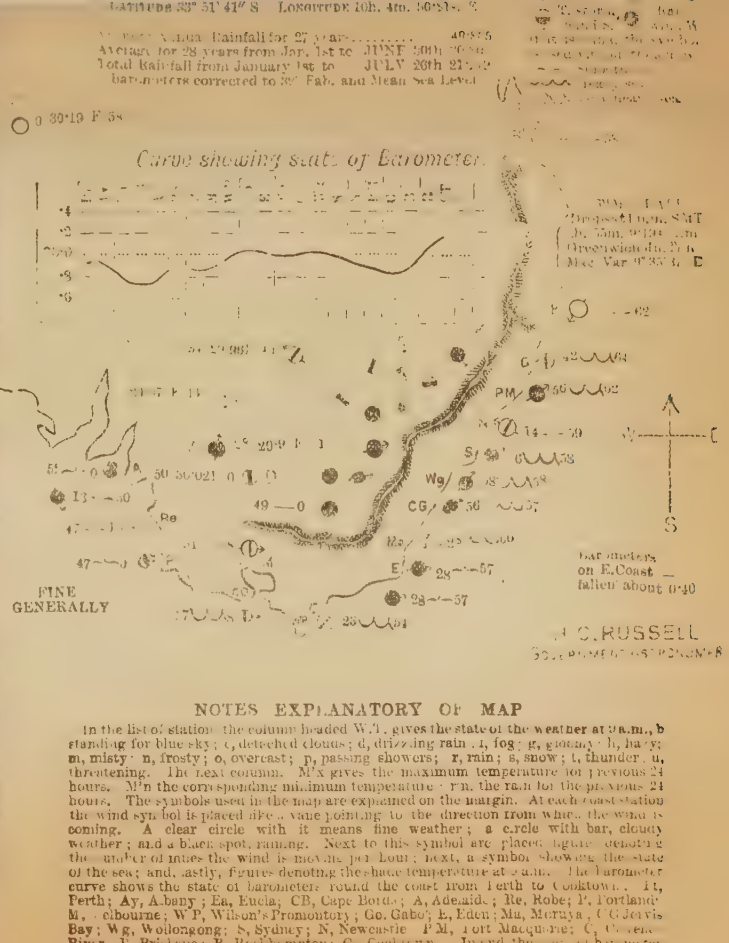
Easterly gale all day Sunday, and steady rain; 0·60 fell up to 9 p.m., which with 0·62 up to 9 a.m. makes 1·22 since 9 a.m. Saturday.

ASTRONOMICAL MEMORANDA FOR JULY 26.

Sun rises at 7.58, sets at 5.14; Moon, 1.46 a.m., 12.30 p.m.; Mercury, 8.12 a.m., 7.19 p.m.; Venus, 4.50 a.m., 2.46 p.m.; Mars, 10.21 a.m., 10.53 p.m.; Jupiter, 9.56 a.m., 9.56 p.m.; Saturn, 5.48 a.m., 3.46 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 26: 2.32 a.m.; 3.6 p.m.

Armidale	f	48	46 1·25
Balranald	c	68	35 0·70
Bathurst	r	55	48 0·25
Bend'm'r	r	55	43 0·92
Bodalla	g	60	46 0·63
Bourke	c	66	49 1·87
Bundarra	f	58	45 0·50
C'md'n H	r	65	57 1·20
C. St. Geo	r	63	44 0·20
Carcoar	r	57	41 0·68
Casino	g	62	54 3·71
Cassilis	c	55	51 1·08
Clarence	c	67	60 0·31
C'nd'b'lin	f	61	51 0·09
Cooma	g	55	44 0·63
Coonab'n	b	54	43 1·73
Cowra	r	59	39 0·75
Deniliq'n	g	66	46 0·25
Dubbo	f	58	47 1·82
Eden	r	57	0·16
Euston	r	63	42 0·69
Forbes	g	64	48 0·50
Gl'n Inn's	g	62	1·30
Goulburn	g	54	47 1·23
Grafton	r	68	58 2·54
Gulgong	r	58	45 1·62
Gunned'h	c	66	49 1·48
Hay	c	66	41 0·25
Inverell	r	62	45 0·90
Kiandra	o	43	31 0·26
Lismore	r	64	59 3·28
Maitland	g	65	55 0·41
Marsdens	c	62	51 0·65
Menindie	o	57	52 2·79
Molong	r	52	45 1·55
M'r'ng'r'll	r	58	50 0·60
Moree	f	61	45 1·98
Moruya	g	62	57 0·39
Moss Vale	r	58	50 2·92
Mt. Hope	f	61	47 0
M. Vict'ria	r	60	41 2·21
Mudgee	r	62	43 1·66
M'rr'm'bh	r	52	48 0·89
M'rr'ndi	g	58	35 1·25
Mus'lbr'k	o	70	41 0·49
Narrabri	c	65	39 2·81
Newcastle	u	62	57 1·06
Orange	r	51	43 1·46
Picton	r	57	54 2·55
P. M'q'rie	r	66	58 1·35
P. St'ph'n	c	62	52 0·65
Q'nbeyan	g	54	47 0·23
Quirindi	f	63	50 1·17
Singleton	r	67	56 0·72
SYDNEY	r	61	57 2·27
Tamw'rth	g	57	41 0·81
Taralga	r	59	42 1·23
Taree	r	64	58 1·32
T'nt'rfield	g	63	23 1·87
Wagga	r	59	—0·38
Walcha	g	51	32 1·14
Walgett	c	63	42 0
Warrah	c	55	39 1·17
W'ntw'rth	r	60	45 0·56
Wilcannia	u	—	— 0
W'll'ng'ng	r	64	68 1·22
Young	r	53	47 1·03



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. Min the corresponding minimum temperature. The rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometer round the coast from Perth to Cooktown. P, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go. Gabo; E, Eden; Mu, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle P M, Port Macquarie; C, Clarence River E, Brisbane; R, Rockhampton; C, Cooktown. Inland the curve of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Blue Springs. The barometer curve enables one at a glance to trace the direction of winds, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and gloomy, with light westerly winds, fallen barometers, and smooth sea. Passing showers of light rain at Esperance Bay. Rainfall: Esperance, 0·01; Albany, 0·24; Perth, 0·06. Extremes of barometers and temperature: Esperance Bay, 29·96; Perth, 44°; Carnarvon, 67°; and Geraldton, 30·14.

South Australia.—Generally cloudy and gloomy south of Hergott, and showery south of Burra, with light N.E. to N. winds and calms, fallen barometers, and smooth sea. Light rain recorded south of Farina. Greatest at Nairne and Mount Pleasant, at which places 1·16 and 0·99 inches fell respectively. Raining at Cape Borda, 0.95 inch having already fallen. Extremes of barometers and temperature: Cape Borda, 29·79; M'Donnell Bay, 29·92 and 47°; and Eucla, 55°.

Victoria.—Generally cloudy, with light E. to N. winds, fallen barometers, and rough sea; light rain at Ballarat, foggy at Melbourne, and misty and frosty in places off coast. Extremes of barometers and temperature: Omeo, 30·00 and 48°; Portland, 29·87; and Cape Otway, 57°.

Tasmania.—Generally fine, but cloudy, with risen barometers, light N.E. to N.W. winds, and rough sea. Rainfall at Circular Heads, 0·03. Extremes of barometers and temperature: Falmouth, 30·14 and 54°; Circular Heads, 30·04; and Southport, 49°.

New Zealand.—Generally fine, with variable winds. Showery and squally from S.E. at Wellington. Barometers: Russell, 30·3; Wellington and Bluff, 30·4.

New South Wales.—Generally gloomy and threatening rain, with fresh E. to N.E. winds, fallen barometers, mild temperature and rough sea along the coast (from Sydney to Cape St. George), and Mudgee, Young, and Wagga in west, steady rain is reported throughout; also stations, scattered in coast and mountain districts north of Sydney. The rain fallen during the last 48 hours has been general; but light in south and S.W. parts. In the rest of the colony, however, the falls have been rather heavy, especially west and north of Sydney. Thirty-six stations situated on both sides of the range report above an inch fallen; of these nine had about 2 inches; five 3 inches more or less; whilst Casino heads the list with 3·71 inches. During the last 24 hours Lawrence had 3 inches, making a total of 3·53 for the last three days. River rising fast at Lismore; during the same period the total fall at Bourke amounted to 3·42. Extra stations:—Camden: Rainfall, 2·50 inches, and still raining. Temora: Rainfall, 0·80 inches, and raining steadily. Pooncarie: 0·92 inches. Nowra: Rainfall, 0·90 inches. (For further particulars see map.) Brewarrina: Rainfall, 2·50 inches. Hill End: Rainfall, 0·63 inches.

Queensland.—Generally fine, with light variable winds in south, and calms in north. Barometers fallen, and sea moderate. Rainfall at Brisbane, 2·68. Extremes of barometers and temperature: Cooktown, 30·13 and 78°; Brisbane, 29·83 and 62°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.E., 18, cloudy, sea smooth, temperature 58°; Cape Otway, E.N.E., 40, cloudy and misty, sea smooth, temperature 57°; Melbourne, N.N.E., 8, cloudy and gloomy, temperature 55°; Wilson's Promontory, N.N.E., 23, cloudy and squally, sea rough, temperature 55°.

New South Wales.—Menindie, N., 28, fine, but cloudy, temperature 61°; Wentworth, W.N.W., 28, overcast and dull, temperature 51°; Deniliquin, N., 14, fine, temperature 61°; Eden, N.E., 28, cloudy, little sea, temperature 59°; Moruya, N.E., 28, raining, rough sea, temperature 59°; Cape St. George, E.N.E., 42, raining, rough sea, temperature 59°; Sydney, N.E., 8, light rain, moderate sea, temperature 59°; Newcastle, N.N.E., 14, raining, moderate sea, temperature 59°; Port Macquarie, E.N.E., 56, overcast, squally, rough sea, temperature 66°; Dubbo, S., overcast, temperature 58°; Goulburn, calm, dull, temperature 58°.

STATE OF RIVERS.

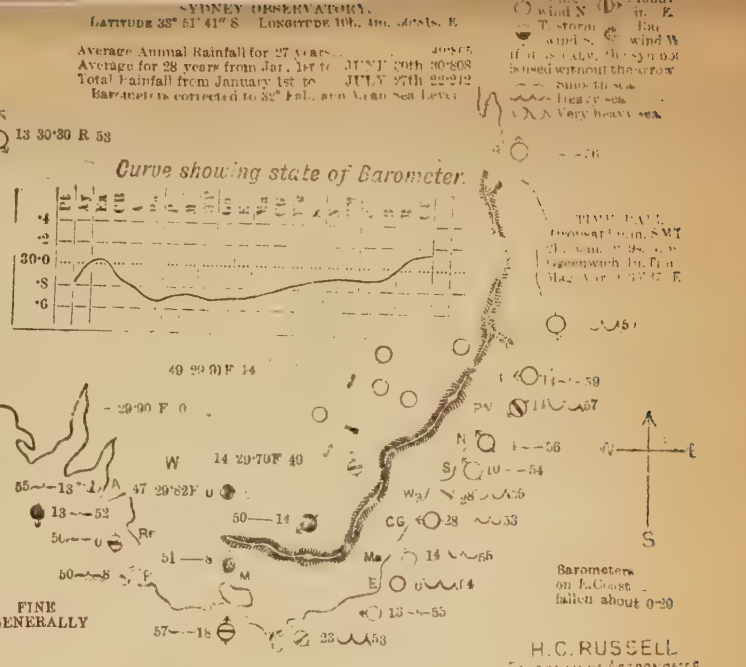
Barwon, 26 feet 4 inches above summer level; Brewarrina, 30 feet above summer level; Goodooga, 5 feet 6 inches above summer level; Gundagai, summer level; Louth, 31 feet above summer level; Mogil Mogil, 20 feet above summer level; Mungindi, 22 feet above summer level; Namoi, low; Tilpa, 34 feet above summer level. Murrumbidgee: At Wagga, 1 foot 5 inches above summer level; at Hay, summer level; at Balranald, summer level. Murray: At Albury, 1 foot 6 inches above summer level; at Euston, 1 foot 6 inches above summer level. Darling: At Wentworth, 7 feet above summer level; at Pooncarie, 19 feet 3 inches above summer level; at Menindie, 22 feet above summer level; at Wilcannia, 30 feet 2 inches above summer level; at Bourke, 33 feet 8 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 27.

Sun rises at 6.57, sets at 5.15; Moon, 2.45 a.m., 1.15 p.m.; Mercury, 8.9 a.m., 7.19 p.m.; Venus, 4.52 a.m., 2.47 p.m.; Mars, 10.19 a.m., 10.52 p.m.; Jupiter, 9.53 a.m., 9.53 p.m.; Saturn, 5.44 a.m., 3.43 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 26: 3.45 a.m.; 4.23 p.m.

Albury	r	55	60	0·50
Armidale	c	49	46	0·09
Balranald	r	61	39	0·13
Bathurst	g	56	42	0·07
Bend'm'r	b	52	43	0·02
Bodalla ..	b	62	45	0·90
Bourke ..	c	70	48	0·08
Bundarra	b	66	49	0·13
C'md'n H	c	65	57	0·55
C.St.Geo	b	61	45	1·25
Carcoar ..	g	54	41	0·08
Casino ..	c	72	53	0
Cassilis ..	b	57	44	0
Clarence	b	70	58	0·01
C'nd'b'lin	g	56	31	0
Cooma ..	c	57	24	0·25
Coonab'n	b	61	32	0
Cowra ..	g	60	34	0·07
Deniliq'n	r	56	44	0·12
Dubbo ..	b	64	34	0
Eden	b	60	57	0·73
Euston ...	c	56	44	0
Forbes ..	g	62	39	0
Gl'n Inn's	g	50	45	0
Goulburn	g	57	40	0·44
Grafton ..	g	73	51	0·17
Ea.				
Gulgong	b	58	40	0
Gunned'h	b	64	44	0
Hay	c	66	45	0
Inverell ..	b	61	46	0
Kiandra	r	44	34	0·62
Lismore	r	66	56	0·03
Maitland	b	64	54	0·48
Marsdens	c	56	49	0·01
Menindie	c	62	51	0
Molong ..	o	53	40	0·02
M'r'ng'r'll	g	60	49	0
Moree ..	b	66	44	0·09
Moruya ..	b	62	48	0·58
Moss Vale	b	54	44	0·65
Mt. Hope	g	55	45	0
M.Vict'ria	b	51	38	0·22
Mudgee ..	b	58	38	0·02
M'rr'm'bh	c	57	46	0·15
M'rr'r'ndi	b	58	51	0
Mus'lbr'k	b	70	44	0·13
Narrabri	b	65	36	0
Newcastle	b	64	52	1·10
Orange ..	g	51	40	0·12
Picton ..	b	62	45	0·46
P. M'q'rie	g	65	55	1·17
P. St'ph'n	b	65	47	2·35
Q'nbeyan	g	56	44	0·33
Quirindi	b	66	31	0
Singleton	b	61	53	0·25
SYDNEY ..	h	61	51	1·06
Tamw'rth	b	59	44	0
Taralga ..	b	61	39	0·42
Taree	b	63	56	1·67
T'nt'rfield	b	60	45	0·15
Wagga ..	g	58	—	0·24
Walcha ..	o	55	38	0·06
Walgett ..	c	63	43	0
Warrah ..	b	60	38	0
W'ntw'rth	u	54	43	0·21
Wilcannia	c	—	—	0
W'll'ng'ng	b	62	52	0·48
Young ..	g	58	46	0·15



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; Rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light N.E. to N.W. winds, fallen barometers, and moderate sea. Rainfall: Esperance Bay, 0·08; and at Eucla, 0·03. Extremes of barometers and temperature: Esperance Bay, 30·00 and 40°; Albany, 29·81; and Carnarvon, 67°.

South Australia.—Generally cloudy, and gloomy south of Peake, and showery in places, with light N.W. to S.W. winds, almost steady barometers, and smooth sea. Light rain recorded south of Farina; greatest at Kadina, Crafers, and Wallaroo, at which places 0·79, 0·75, and 0·75 inch fell respectively. Passing showers at Cape Borda, and 0·42 already fallen. Extremes of barometers and temperature: On coast, Robe, 29·65; Eucla, 30·07 and 52°; M'Donnell Bay, 47°.

Victoria.—Generally cloudy, gloomy, with light N. to W. winds, and fallen barometers; sea rough in S.E., and moderate on S.W. coast; passing showers of misty rain at Melbourne and Ballarat; foggy, misty, and squally along the coast; light rain has fallen generally, records varying from 11 to 23 points. Extremes of barometers and temperature: Ballarat, 29·78 and 46°; Wilson's Promontory, 29·65; and Horsham, 56°.

Tasmania.—Generally cloudy, and threatening rain, with light W. to E. winds and calms, fallen barometers, and rough sea. Raining at Falmouth and Southport. Rain fallen generally, varying in amount from 4 to 51 points. Extremes of barometers and temperature: Southport, 29·76 and 48°; Falmouth, 29·63 and 53°.

New Zealand.—Generally fine, with S.E. to S.W. winds and calms. Barometers: Russell and Wellington, 30·4; and Bluff, 30·3.

New South Wales.—Along the coast and in north parts generally fine; in south and west parts cloudy and gloomy, with rain along the Murray River. Light rain has fallen generally in the eastern division of the colony, principally west and south of Sydney; on the coast, however, the falls have been rather heavy; ten stations between Gabo Island and Port Macquarie report an inch, slightly more or less, and one, Port Stephens, over 2½ inches. Winds generally are light and westerly, barometers and temperature fallen, and sea still rough, though moderating in places. In consequence of the late heavy rains the Darling has commenced to rise again in the upper parts of its course. Reading of the standard barometers at 9 a.m., corrected to 32° Fahr. and mean sea level, 29·84. Extra stations:—Nowra: Max. 61°, min. 47°, rainfall, 0·70. Brewarrina: Max. 62°, min. 39°, cloudy, and threatening rain. Camden: Rainfall, 56 points, fine and warm; Nepean water within 10 feet of the bridge, but no flood is anticipated. Wilcannia: Rain, 0·37. For further particulars see map.

Queensland.—Generally fine, with light variable winds and calms, fallen barometers, and smooth sea. Rough sea off Cape Moreton. Extremes of barometers and temperature: Cooktown, 30·12 and 76°; Townsville, 29·75; and Cape Moreton, 57°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 13, cloudy, sea smooth, temperature 55°; Cape Otway, N.N.E., 18, light rain and misty, sea moderate, temperature 57°; Melbourne, N.W., 13, cloudy and gloomy, temperature 56°; Wilson's Promontory, N.W., 23, cloudy and squally, sea moderate, temperature 54°.

New South Wales.—Menindie, calm, dull, temperature 59°; Wentworth, N.W., 14, showery, temperature 51°; Deniliquin, N.W., 14, showery, temperature 60°; Eden, N.E., 14, fine, heavy sea, temperature 59°; Moruya, N.W., 28, fine, rough sea, temperature 65°; Cape St. George, W., 14, fine, moderate sea, temperature 65°; Sydney, N.W., 8, fine, smooth sea, temperature 63°; Newcastle, W., 14, fine, smooth sea, temperature 63°; Port Macquarie, calm, cloudy, moderate sea, temperature 63°; Clarence River, calm, moderate sea, temperature 68°; Dubbo, 14, N.W., fine but cloudy, temperature 57°; Goulburn, N.W., 14, fine, temperature 57°.

STATE OF RIVERS.

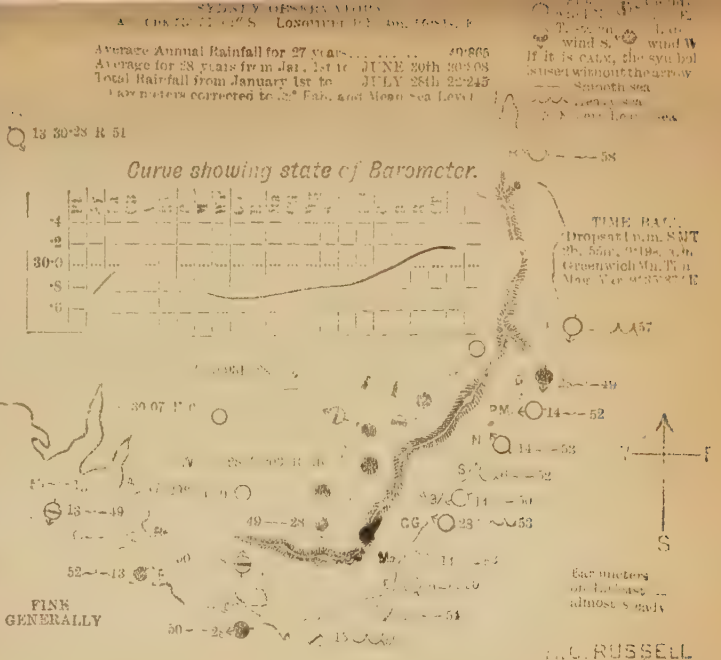
Barwon, 25 feet 6 inches above summer level; Brewarrina, 39 feet above summer level; Goodooga, 6 feet 2 inches above summer level; Gundagai, 1 foot above summer level; Louth, 31 feet 5 inches above summer level; Mogil Mogil, 21 feet above summer level; Mungindi, 21 feet 6 inches above summer level: Namoi, low; Tilpa, 34 feet 4 inches above summer level. Murrumbidgee: At Wagga, 1 foot 5 inches above summer level; at Hay, summer level; at Balranald, summer level. Murray: At Albury, 1 foot above summer level; at Euston, 1 foot 11 inches above summer level. Darling: At Wentworth, 7 feet above summer level; at Pooncarie, 9 feet 5 inches above summer level; at Menindie, 22 feet above summer level; at Wilcannia, 30 feet 4 inches above summer level; at Bourke, 33 feet 7 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 28.

Sun rises at 6.56, sets at 5.16: Moon, 3.46 a.m., 2.4 p.m.; Mercury, 8.7 a.m., 7.19 p.m.; Venus, 4.53 a.m., 2.47 p.m.; Mars, 10.16 a.m., 10.50 p.m.; Jupiter, 9.49 a.m., 9.49 p.m.; Saturn, 5.41 a.m., 3.39 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison, July 28: 5.2 a.m., 5.41 p.m.

Albury	r	59	49 0·50
Armidale	c	48	41 0·01
Balranald	g	61	40 0
Bathurst	r	52	37 0·07
Bend'm'r	c	51	38 0
Bodalla	g	74	37 0
Bourke	b	69	46 0
Bundarra	c	62	44 0
C'md'n H	b	65	46 0
C. St. Geo	b	67	39 0
Carcoar	g	58	41 0·07
Casino	b	74	45 0
Cassilis	c	56	44 0·02
Clarence	g	70	52 0
C'nd'b'lin	g	56	31 0·12
Cooma	n	61	22 0·02
Coonab'n	g	60	40 0·03
Cowra	g	57	36 0
Deniliq'n	b	56	45 0·14
Dubbo	g	58	42 0·08
Eden	b	61	57 0
Euston	b	61	45 0
Forbes	c	61	50 0·11
Gl'n Inn's	o	55	36 0
Goulburn	u	55	33 0
Grafton	g	74	47 0
Ga.			
Gulgong	u	58	40 0·11
Gunned'h	c	64	44 0
Hay	r	63	46 0·08
Inverell	o	59	40 0
Kiandra	r	41	33 0·47
Lismore	b	77	47 0
Maitland	b	67	41 0
Marsdens	u	57	48 0
Menindie	b	68	50 0
Molong	r	51	38 0·02
M'r'ng'r'll	c	57	40 0·04
Moree	b	68	46 0·13
Moruya	b	70	47 0
Moss Vale	u	53	41 0
Mt. Hope	r	60	50 0·25
M. Victoria	b	50	35 0
Mudgee	g	60	37 0·03
M'r'm'bh	g	57	44 0
M'r'r'ndi	r	58	51 0·08
Mus'll'br'k	g	68	40 0
Narrabri	g	65	39 0·11
Newcastle	b	65	46 0
Orange	r	49	38 0·06
Picton	b	63	39 0
P. M'q'rie	b	65	46 0·02
P. St'ph'n	b	63	39 0
Q'nbeyan	g	54	44 0·05
Quirindi	u	64	41 0
Singleton	c	63	49 0
Sydney	h	64	46 0
Tamw'rth	r	61	41 0·08
Taralga	r	63	40 0·05
Taree	b	68	46 0
Tnt'rfield	b	58	37 0
Wagga	r	57	—0·16
Walcha	o	55	32 0
Walgett	u	47	43 0·06
Warrah	g	56	44 0·16
W'ntw'rth	b	58	45 0·16
Wilcannia	b	—	—0·06
W'll'ng'ng	b	66	47 0
Young	r	59	41 0·02



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky, c, detached clouds, d, drizzling rain, f, foggy, g, cloudy, h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain, s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Be, Hobart; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds precedeing them, and southerly following.

Western Australia.—Perth, overcast, and heavy rain from N.W., barometer 29·73, and temperature 55°; Albany, showery; and Esperance Bay, gloomy, with N.W. winds, fallen barometers, and smooth sea. Rainfall: Perth, 0·79; Albany, 0·33.

South Australia.—Generally cloudy and gloomy south of Port Augusta, with light W. to S.W. winds and calms, rising barometers, and smooth sea. Showery at M'Donnell Bay. Light rain recorded south of Beltana; greatest at Watewale and Clare, at which places 0·66 and 0·53 inch fell. Along the coast the falls vary from 2 to 22 points. Extremes of barometers and temperature: On coast, Port Augusta, 30·06; M'Donnell Bay, 29·82 and 47°; and Eucla, 55°. In Northern Territory, Daly Waters, 30·02 and 73°; Port Darwin, 29·82 and 79°.

Victoria.—Generally passing showers of misty rain, with fresh N. to W. winds, almost steady barometers, and smooth sea in S.W., but rough on S.E. coast; foggy at Melbourne; raining at Omeo, Ballarat, Hamilton, Cape Otway, and Portland; light rain recorded generally, varying from 2 to 31 points, the greatest being at Hamilton. Extremes of barometers and temperature: Horsham, 29·83 and 54°; Hamilton, 29·69 and 47°.

Tasmania.—Generally raining, with light N. to W. winds, fallen barometers, and rough sea on E. coast. Rainfall: Southport, 0·48; Hobart, 0·10; Falmouth, 0·08; Low Heads, 0·21; and Circular Heads, 0·16. Extremes of barometers and temperature: Circular Head, 29·59 and 51°; Hobart, 29·53 and 49°.

New Zealand.—Generally fine, with N. and W. winds. Barometers: Russell, 30·5; Wellington, 30·4; and Bluff, 30·2.

New South Wales.—Along the coast and on the Darling, generally fine and clear; in central parts, cloudy and threatening rain, with light westerly winds, almost steady barometers, and moderate sea. Raining more or less heavily at 13 stations west of the range in south parts, as far north as Hill End and Mount Hope. Light rain recorded west of the range generally, but principally in south, and heaviest at Albury, where half-an-inch fell. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·07; Eden, 29·69; Newcastle, 53°; and Kiandra, 35°. Reading of standard barometer at Sydney corrected to 32° Fah., and mean sea level 29·843. Extra stations: Nowra, max. 59°, min. 44°, hazy and cloudy; Temora, rainfall 0·28, and still raining; Hill End, rainfall 0·07, and raining steadily. For further particulars see map.

Queensland.—Generally fine; in south parts E. to south winds, and rough sea; in north, calm and smooth sea. No rain fallen. Extremes of barometers and temperature: Cooktown, 30·13 and 68°; Townsville, 29·77; and Brisbane, 57°.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, S.W., 8, cloudy and gloomy, temperature 52°; Cape Shanck, W.S.W., 23, light rain, sea moderate, temperature 55°.

New South Wales.—Menindie, S.W., 28, fine, but cloudy, temperature 58°; Wentworth, S.W., 28, fine, but cloudy, temperature 52°; Deniliquin, W., 14, cloudy, temperature 60°; Eden, S.W., 14, fine, smooth sea, temperature 58°; Moruya, calm, fine, smooth sea, temperature 65°; Cape St. George, W., 14, fine, smooth sea, temperature 62°; Sydney, W.N.W., 14, fine, smooth sea, temperature 63°; Newcastle, W., 14, fine, smooth sea, temperature 63°; Port Macquarie, N.W., 14, fine, moderate sea, temperature 67°; Clarence River, calm, fine, moderate sea, temperature 69°; Dubbo, W., 14, showery, temperature 58°; Goulburn, N.W., dull, temperature 56°.

STATE OF RIVERS.

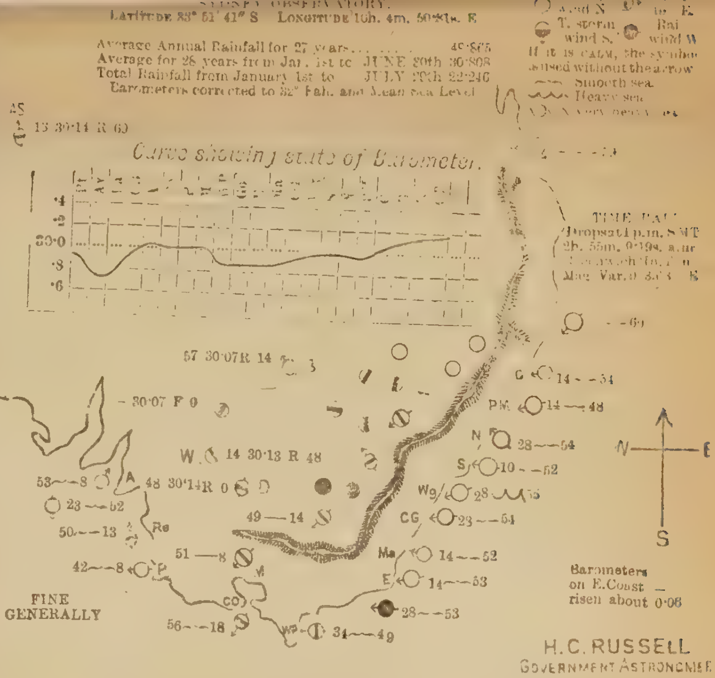
Barwon, 25 feet 7 inches above summer level; Brewarrina, 29 feet 4 inches above summer level; Goodooga, 7 feet 3 inches above summer level; Gundagai, 1 foot 10 inches above summer level; Louth, 31 feet 10 inches above summer level; Mogil Mogil, 25 feet above summer level; Mungindi, 22 feet above summer level; Namoi, 3 feet above summer level; Tilpa, 34 feet 8 inches above summer level. Murrumbidgee: At Wagga, 1 foot 5 inches above summer level; at Hay, summer level; at Balranald, summer level. Murray: At Albury, 1 foot 6 inches above summer level; at Euston, 2 feet 2 inches above summer level. Darling: At Wentworth, 7 feet 2 inches above summer level; at Pooncarie, 19 feet 6 inches above summer level; at Menindie, 22 feet 2 inches above summer level; at Wilcannia, 30 feet 5 inches above summer level; at Bourke, 33 feet 1 inch above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 29.

Sun rises at 6.56, sets at 5.16; Moon, 4.46 a.m., 3 p.m.; Mercury, 8.3 a.m., 7.17 p.m.; Venus, 4.54 a.m., 2.48 p.m.; Mars, 10.30 a.m., 10.49 p.m.; Jupiter, 9.45 a.m., 9.46 p.m.; Saturn, 5.38 a.m., 3.35 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 30th.

High water at Port Denison: 6.14 a.m., 6.47 p.m.

Albury	g	59	49	0·25
Armidale	b	45	42	0
Balranald	g	63	33	0
Bathurst	g	53	41	0·01
Bend'm'r	r	55	41	0·26
Bodalla..	o	70	32	0·01
Bourke ..	g	68	49	0
Bundarra	c	53	46	0·02
C'md'n H	b	64	47	0
C.St.Geo	b	65	42	0
Carcoar..	g	50	43	0·71
Casino ..	b	74	43	0
Cassilis ..	b	55	43	0·01
Clarence	b	61	51	0
C'nd'b'lin	n	55	31	0
Cooma ..	o	57	27	0
Coonab'n	g	57	27	0·03
Cowra ..	g	58	41	0·20
Deniliq'n	g	58	44	0·04
Dubbo ..	b	57	36	0·03
Eden	g	59	47	0·05
Euston ..	g	60	42	0
Forbes ..	b	65	43	0
Gl'n Inn's	b	48	41	0
Goulburn	g	53	40	0·02
Grafton..	b	76	46	0
Gulgong	u	55	38	0·05
Gunned'h	b	59	45	0
Hay	o	63	43	0
Inverell..	b	59	40	0
Kiandra	r	38	31	0·62
Lismore	b	74	47	0
Maitland	b	64	42	0
Marsdens	c	56	48	0
Menindie	u	61	51	0
Molong ..	o	56	41	0·16
M'r'ng'r'll	c	59	47	0·11
Moree ..	b	64	44	0
Moruya..	b	67	43	0·01
Moss Vale	b	52	41	0
Mt. Hope	u	59	45	0
M.Vict'ria	b	48	35	0
Mudgee..	g	58	36	0·02
M'rr'm'bh	g	54	45	0·11
M'rr'r'ndi	b	53	41	0·11
Mus'lbr'k	b	68	42	0·01
Narrabri	g	62	38	0·02
Newcastle	b	66	49	0
Orange ..	c	49	38	0·36
Picton ..	b	61	39	0
P. M'q'rie	b	66	40	0
P. St'ph'n	b	62	44	0
Q'nbeyan	n	52	39	0
Quirindi	g	58	46	0·04
Singleton	q	62	52	0
SYDNEY ..	h	63	47	0
Tamw'rth	c	55	45	0·03
Taralga ..	g	69	42	0
Taree	b	62	45	0
T'nt'rfield	b	57	40	0·08
Wagga ..	r	61	—	0·26
Walcha ..	c	50	35	0·06
Walgett..	g	62	45	0
Warrah ..	g	58	40	0·07
W'ntw'rth	g	57	45	0
Wilcannia	c	—	—	0
W'll'ng'ng	b	65	50	0
Young ..	g	59	45	0·10



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.1. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy, m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown; Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland, M, Melbourne; WP, Wilson's Promontory, Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to [illegible], beginning with Western Australia and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—In south parts cloudy and gloomy, with fresh westerly winds and rough sea. Squally at Perth, and showery at Albany. Rainfall: Perth, 0·25; Albany, 0·28; and Esperance Bay, 0·18. Extremes of barometers and temperature: Perth, 29·92 and 55°; Albany, 29·72; and Esperance Bay, 43°. No reports from north.

South Australia.—Generally fine, with scattered clouds, north-east to north winds and calms, fallen barometers, and smooth sea. Rainfall: Cape Borda, 0·03; M'Donnell Bay, 0·05. Extremes of barometers and temperature: On coast, M'Donnell Bay, 30·00 and 45°; Eucla, 29·75 and 58°. In Northern Territory, Daly Waters, 30·03 and 79°; Port Darwin, 29·92 and 75°; at the latter place dense fog.

Victoria.—Generally cloudy and gloomy, with light N. to W. winds, risen barometers, and moderate sea; squally at Wilson's Promontory; foggy at Cape Schanck. Rainfall: Lakes Entrance, 0·06; Wilson's Promontory, 0·10; Melbourne, 0·33; Hamilton, 0·50; Ballarat, 0·39; and Cape Schanck, 0·10. Extremes of barometers and temperature: Ballarat, 30·06 and 44°; Omeo, 29·93; and Horsham, 55°.

Tasmania.—Generally gloomy and threatening rain, with light south to S.W. winds and calms, risen barometers, and smooth sea on north, but rough on east coast. Foggy at Low Heads and Hobart. Rainfall: Low Heads, 0·12; Southport, 0·35. Extremes of barometers and temperature: Circular Heads, 29·89 and 47°; Southport, 29·76 and 43°.

New Zealand.—Generally fine, with northerly winds, gloomy, and strong N.E. wind at Russell. Barometers: Russell, 30·4; Wellington, 30·3; and Bluff, 30·1.

New South Wales.—Along the coast, and in N.E. parts, fine and clear; in the remainder of the colony cloudy and threatening rain, with light N.W. to S.W. winds; slightly risen barometers, and smooth to moderate sea, but rough off Wollongong; raining at a few stations in extreme south, on both sides of the range; light rain recorded west of the range generally, principally in south, and greatest at Carcoar and Kiandra, at which places above ½ inch fell; the temperature has fallen generally, and on the range (in south) it is frosty. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·17; Eden, 29·85; Bourke, 57°; and Cooma, 33°. Reading of standard barometer at Sydney corrected to 32° Fah., and mean sea level at 9 a.m., 29·966. Extra stations: Nowra, max. 62°, min. 43, fine; Brewarrina, max. 60°, min. 42, overcast. For further particulars see map.

Queensland.—Generally fine, with S.E. to S.W., winds in [illegible]th and calms in north part; sea moderate; thunderstorm at Townsville. Extremes of barometers and temperature: Rockhampton, 30·12 and 59°; Townsville, 29·82, and Cooktown, 82°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N., 23, cloudy, sea smooth, temperature 53°; Cape Otway, S.W., 13, cloudy, sea smooth, temperature 59.; Melbourne, S., 8, cloudy, temperature 53°; Cape Schanck, W., 8, fine but cloudy, sea smooth, temperature 56°; Wilson's Promontory, W., 23, cloudy and squally, sea moderate, temperature 52°.

New South Wales.—Menindie, calm, fine, but cloudy, temperature 59°; Wentworth, N., 14, fine, but cloudy, temperature 52°; Deniliquin, N.W., 14, overcast and dull, temperature 60°; Eden, S.W., 14, fine, smooth sea, temperature 58°; Moruya, E., 14, fine, but cloudy, smooth sea, temperature 60°; Cape St. George, S., 14, fine, smooth sea, temperature 61°; Sydney, W.N.W., 10, fine, but cloudy, smooth sea, temperature 61°; Newcastle, W., 14, fine, smooth sea, temperature 63°; Port Macquarie, calm, fine, moderate sea, temperature 63°; Clarence River, N.W., 14, fine, moderate sea, temperature 68°; Walgett, S.W., cloudy, temperature 57°; Dubbo, W., 14, fine, temperature 55°; Goulburn, N.W., dull, temperature 50°.

STATE OF RIVERS.

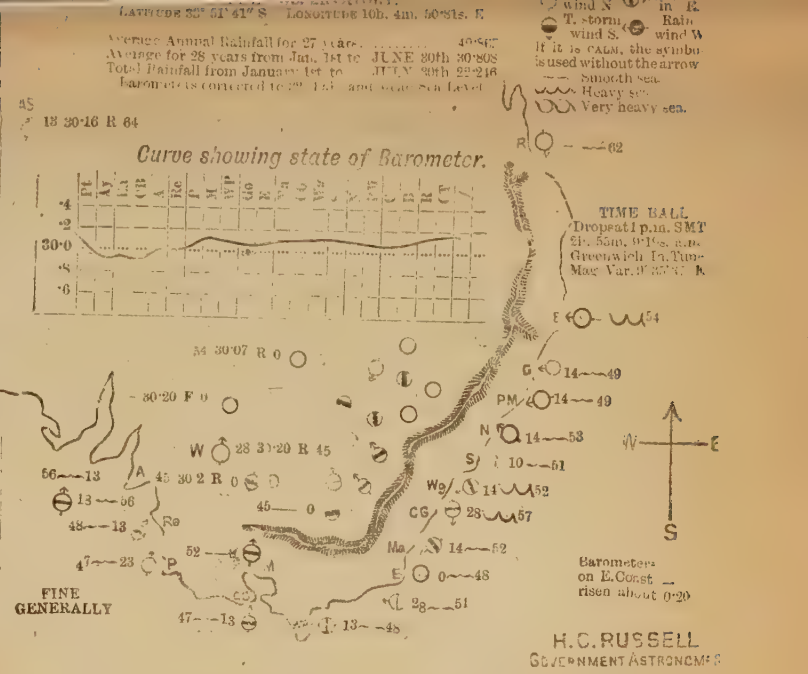
Barwon, 25 feet 6 inches above summer level; Brewarrina, 27 feet above summer level; Goodooga, 8 feet 4 inches above summer level; Gundagai, 3 feet 9 inches above summer level; Louth, 32 feet above summer level; Mogil Mogil, 27 feet 6 inches above summer level; Mungindi, 22 feet above summer level; Namoi, 4 feet above summer level; Tilpa, 35 feet 1 inch above summer level. Murrumbidgee: At Wagga, 1 foot 5 inches above summer level; at Hay, summer level; at Balranald, 8 inches above summer level. Murray: At Albury, 1 foot 4 inches above summer level; at Euston, 2 feet 2 inches above summer level. Darling: At Wentworth, 7 feet 3 inches above summer level; at Pooncarie, 19 feet 8 inches above summer level; at Menindie, 22 feet 3 inches above summer level; at Wilcannia, 30 feet 6 inches above summer level; at Bourke, 32 feet 9 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 30.

Sun rises at 6.55, sets at 5.17; Moon, 5.45 a.m., 4.3 p.m.; Mercury, 7.9 a.m., 7.15 p.m.; Venus, 4.55 a.m., 2.49 p.m.; Mars, 10.10 a.m., 10.48 p.m.; Jupiter, 9.41 a.m., 9.43 p.m.; Saturn, 5.34 a.m., 3.32 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison: 7.16 a.m., 7.44 p.m.

Armidale	b	51	40	0
Balranald	g	61	29	0
Bathurst	g	48	38	0
Bend'm'r	g	54	41	0·04
Bodalla ..	c	71	42	0·03
Bourke ..	b	72	48	0
Bundarra	c	56	46	0
C'md'n H	b	64	44	0
C.St.Geo	c	63	53	0·03
Carcoar ..	g	48	41	0·03
Casino ..	b	71	40	0
Cassilis ..	o	54	45	0
Clarence	b	70	48	0
C'nd'b'lin	b	55	31	0
Cooma ..	n	59	29	0·08
Coonab'n	b	56	28	0·02
Cowra ..	g	57	39	0·02
Deniliq'n	g	51	42	0
Dubbo ..	h	57	35	0
Eden	b	59	43	0
Euston ..	b	62	34	0
Forbes ..	b	64	41	0
Gl'n Inn's	b	47	36	0
Goulburn	g	53	39	0
Grafton ..	b	73	48	0
Gulgong	c	57	38	0
Gunned'h	b	59	44	0
Hay	g	61	41	0
Inverell ..	b	55	44	0
Kiandra	f	42	32	0·40
Lismore	b	70	42	0
Maitland	b	60	48	0
Marsdens	n	59	47	0
Menindie	b	59	45	0
Molong ..	b	56	31	0·04
M'r'ng'r'll	b	57	43	0
Moree ..	b	64	47	0
Moruya ..	g	68	48	0
Moss Vale	b	51	40	0
Mt. Hope	u	55	44	0
M.Vict'ria	b	48	37	0
Mudgee ..	g	60	35	0
M'rr'm'bh	u	54	40	0·05
M'rr'r'ndi	o	53	46	0
Mus'lbr'k	n	64	32	0
Narrabri	h	60	41	0
Newcastle	b	66	45	0
Orange ..	c	47	35	0
Picton ..	b	61	36	0
P. M'q'rie	b	64	43	0
P. St'ph'n	b	61	39	0
Q'nbeyan	f	53	41	0
Quirindi	g	57	47	0
Singleton	b	60	41	0
SYDNEY ..	c	62	48	0
Tamw'rth	g	56	45	0·02
Taralga ..	u	79	48	0
Taree	b	67	44	0
T'nt'rfield	b	54	33	0
Wagga ..	g	60	48	0·02
Walcha ..	o	49	33	0·03
Walgett ..	c	60	49	0
Warrah ..	g	57	42	0
W'ntw'rth	b	60	39	0
Wilcannia	b	—	—	0
W'll'ng'ng	c	67	46	0
Young ..	g	57	39	0·06



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Max., gives the maximum temperature for previous 24 hours. Min. the corresponding minimum temperature; Rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light variable winds, risen barometers, and moderate sea. Rainfall: Albany 0·04 Esperance Bay 0·13, and Cossack 0·16. Extremes of Barometers and Temperature: Geraldton 30·11, Cossack 29·87, Carnarvon 67°, and Esperance Bay 46°.

South Australia.—Generally cloudy and threatening rain, with fresh N.E. to N. winds, almost steady barometers, and smooth sea; dense fog at Streaky Bay; no rain fallen. Extremes of Barometers and Temperature: On coast—M'Donnell Bay 30·04 and 44°, Cape Borda 29·94 and 56°; in Northern Territory—Daly Waters 30·06 and 77°, Port Darwin 30·04 and 79°.

Victoria.—Generally cloudy and gloomy, with light N.E. to N.W. winds, risen barometers, and smooth sea. Misty at Cape Schanck, and one point rain fallen at Wilson's Promontory. Extremes of barometers and temperature: Ballarat, 30·19 and 44°; Portland, 30·06; and Cape Schanck, 54°.

Tasmania.—Generally fine, with light variable winds, risen barometers, and smooth sea. At Falmouth the sea is rough, and heavy dew fallen at Southport. Extremes of barometers and temperature: Falmouth, 30·18; Circular Heads, 30·10 and 46°; Hobart, 38°.

New Zealand.—Passing showers on south-west coast; gloomy, and very strong N.W. wind at Russell. At Wellington and Bluff fine, with N. to N.E. winds. Barometers: Russell, 30·2; Wellington, 30·1; and Bluff, 29·8.

New South Wales.—In north parts generally fine and clear; in south and along the range, generally cloudy and gloomy; winds are light from west to south, and calm in places; barometers have risen, temperature fallen, and the sea is generally moderate, but rough off Wollongong and Cape St. George; fog and frost is reported from several stations near the range in south; light rain has fallen at 15 stations, scattered principally west of the range in south, being greatest at Kiandra, where 70 points was recorded. Extremes of barometers and temperature at 9 a.m.: Deniliquin, 30·22; Clarence, 30·05; Cape St. George, 57°; and Cooma, 35°. Reading of standard barometer at Sydney corrected to 32° Fah., and mean sea level at 9 a.m., 30·129. Extra stations: Brewarrina, max. 60°, min. 43, cloudy; Gabo Island, 7 points rain. For further particulars see map.

Queensland.—Generally fine, with south to west winds in south and calms in north part; sea smooth, except off Cape Moreton. Extremes of barometers and temperature: Cooktown, 30·18 and 82°; Townsville, 29·86, and Brisbane, 54.

3 P.M. OBSERVATIONS.

Victoria.—Cape Shanck, W.N.W., 13, fine but cloudy, sea smooth, temperature 55°.

New South Wales.—Menindie, calm, fine, temperature 58°; Wentworth, N., 14, fine, temperature 54°; Deniliquin, calm, fine but cloudy, temperature 60°; Eden, S.W., 14, fine, smooth sea, temperature 56°; Moruya, S., 28, fine, moderate sea, temperature 57°; Cape St. George, S., 28, cloudy, heavy sea, temperature 57°; Sydney, S., 13, cloudy and dull, smooth sea, temperature 55°; Newcastle, S., 14, fine, smooth sea, temperature 59°; Port Macquarie, S.W., 14, fine, smooth sea, temperature 64°; Clarence River, S.W., 14, fine, moderate sea, temperature 62°; Walgett, S.E., 14, fine, temperature 58°; Dubbo S., 14, fine, temperature 56°; Goulburn, calm, dull, temperature 56°.

STATE OF RIVERS.

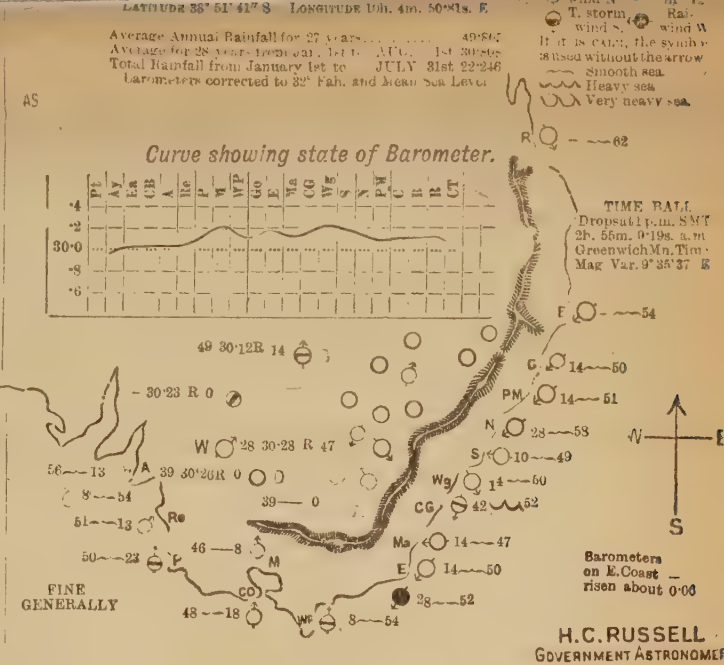
Barwon, 28 feet 10 inches above summer level; Brewarrina, 26 feet 3 inches above summer level; Goodooga, 9 feet above summer level; Gundagai, 4 feet above summer level; Louth, 32 feet above summer level; Mogil Mogil, a banker; Mungindi, 22 feet 3 inches above summer level; Namoi, 5 feet 11 inches above summer level; Tilpa, 35 feet 5 inches above summer level. Murrumbidgee: At Wagga, 2 foot 11 inches above summer level; at Hay, summer level; at Balranald, 9 inches above summer level. Murray: At Albury, 1 foot above summer level; at Euston, 1 foot 1 inch above summer level. Darling: At Wentworth, 7 feet 5 inches above summer level; at Pooncarie, 19 feet 9 inches above summer level; at Menindie, 22 feet 4 inches above summer level; at Wilcannia, 30 feet 6 inches above summer level; at Bourke, 32 feet 4 inches above summer level.

ASTRONOMICAL MEMORANDA FOR JULY 31.

Sun rises at 6.55, sets at 5.18; Moon, 6.41 a.m., 5.9 p.m.; Mercury, 7.55 a.m., 7.13 p.m.; Venus, 4.56 a.m., 2.50 p.m.; Mars, 10.7 a.m., 10.47 p.m.; Jupiter, 9.37 a.m., 9.40 p.m.; Saturn, 5.31 a.m., 3.28 p.m. New Moon, 2nd; Full Moon, 16th; New Moon, 31st.

High water at Fort Denison: 8.9 a.m., 8.34 p.m.

Armidale	n	34	31	0
Balranald	b	74	27	0
Bathurst	b	49	33	0
Bend'm'r	n	52	26	0
Bodalla ..	b	63	32	0
Bourke ..	c	70	45	0
Bundarra	n	61	63	0
C'md'n H	g	63	47	0
C. St. Geo	c	60	58	0
Carcoar ..	n	47	33	0
Casino ..	b	68	38	0
Cassilis ..	c	54	48	0
Clarence	b	70	48	0
C'nd'b'lin	b	58	31	0
Cooma ..	n	56	32	0
Coonab'n	n	57	29	0
Cowra ..	b	59	40	0
Deniliq'n	n	62	29	0
Dubbo ..	b	41	29	0
Eden	b	58	46	0
Euston ..	b	75	33	0
Forbes ..	b	65	42	0
Gl'n Inn'	b	52	30	0
Goulburn	b	52	28	0
Gr..fton	f	73	42	0
Ga..				
Gulgong	b	54	31	0
Gunned'a	c	[illegible]		0
Hay	b	63	38	0
Inverell..	n	59	30	0
Kiandra	n	45	21	0
Lismore	b	69	45	0
Maitland	b	60	47	0
Marsdens	n	60	40	0
Menindie	g	61	46	0
Molong ..	n	59	31	0
M'r'ng'r'll	b	68	34	0
Moree ..	b	66	39	0
Moruya..	b	62	47	0
Moss Vale	b	51	37	0
Mt. Hope	g	59	48	0
M.Vict'ria	b	48	33	0
Mudgee..	n	58	28	0
M'rr'm'bh	b	54	34	0
M'rr'r'ndi	b	52	—	0
Mus'br'k	b	67	37	0
Narrabri	b	61	37	0
Newcastle	b	64	50	0·01
Orange ..	n	46	30	0
Picton ..	b	58	36	0
P. M'q'rie	b	63	43	0
P. St'ph'n	r	61	44	0·32
Q'nbeyan	n	50	36	0
Quirindi	n	55	37	0
Singleton	b	69	58	0
Sydney ..	b	58	47	0
Tamw'rth	b	—	—	0
Taralga ..	n	52	35	0
Taree	g	61	45	0
T'nt'rfield	b	54	28	0
Wagga ..	b	60	40	0
Walcha ..	b	47	25	0
Walgett..	b	59	38	0
Warrab..	n	60	35	0
W'ntw'rth	b	66	42	0
Wilcannia	g	—	—	0
W'll'ng'ng	b	62	45	0
Young ..	b	56	33	0



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy, m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature. Rn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pe, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, cloudy and threatening rain, with light west winds and moderate sea; barometer, 29·98; temperaure, 50°; and rainfall, 0·02.

South Australia.—On and near the coast, cloudy and cold, with light north to east winds, slightly risen barometers, and smooth sea; foggy at Streaky Bay. Rainfall: M'Donnell Bay, 0·14; Adelaide, 0·03; and Robe, 0·12. Extremes of barometers and temperature: M'Donnell Bay, 30·11 and 48°; Eucla, 30·00; and Adelaide, 56°.

Victoria.—Generally cloudy and unsettled, with light northerly winds, risen barometers, and smooth sea; heavy dew and mist on coast, frosty inland; and three points rain fallen at Portland. Extremes of barometers and temperature: Melbourne, 30·23; Portland, 30·14; Horsham, 55°; and Echuca, 42°.

Tasmania.—Generally cloudy and gloomy, with light variable wtnds, risen barometers, and moderate sea. Foggy at Hobart, and heavy dew at Southport. Extremes of barometers and tempeeature:—Southport, 30·27 and 43·0; Circular Head, 30·19 and 51°.

New Zealand.—Showery and rough sea on west coast; passing showers, and strong, squally W. W. wind at Russell. Rainfall: 0·25 at Wellington, and gloomy weather. Barometers: Russell, 29·9; Gisborne, 30·0; Wellington, 29·9; and Bluff, 29·8.

New South Wales.—Generally fine, clear, and cold; severe frost along the range, and in south parts; light south to west winds, and sea moderate, but rough off Cape St. George. Light rain fallen on the Hunter River, and still raining at Port Stephens. Rivers risen slightly in consequence of the late rains. Extremes of barometers and temperature, at 9 a.m.: Deniliquin, 30·26; Port Macquarie, 30.07; Newcastle, 58°; and Urandra, 30·. Reading of standard barometer at Sydney corrected to 32° Fah., and mean sea level at 9 a.m., 30·182. Extra stations: Gabo Island, rainfall, 0·05, and still raining; Nowra, max. 63°, min. 43°; rainfall, 0·03, and fine. For further particulars see map.

Queensland.—Generally fine, with S.E. to S.W. winds in south and calms in north parts; sea moderate to smooth, and no rain fallen. Extremes of barometers and temperature: Rockhampton, 30·15; Townsville, 29·79; Brisbane, 54·; and Cooktown, 83·.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, calm, cloudy, temperature 60°; Wentworth, N., 14, cloudy, temperature 52°; Deniliquin, calm, fine, temperature 61°; Moruya, S.S.E., 28, cloudy, moderate sea, temperature 58°; Cape St. George, S., 30, cloudy, heavy sea, temperature 58°; Sydney, W., 10, fine, smooth sea, temperature 58°; Newcastle, S.W., 10, fine, smooth sea, temperature 61°; Port Macquarie, S.S.W., 42, fine, smooth sea, temperature 65°; Clarence River, S., 10, fine, smooth sea, temperature 65°; Dubbo, calm, fine, temperature 57°; Goulburn, calm, fine, temperature 55°; Brewarrina, N.E., 14; fine.

STATE OF RIVERS.

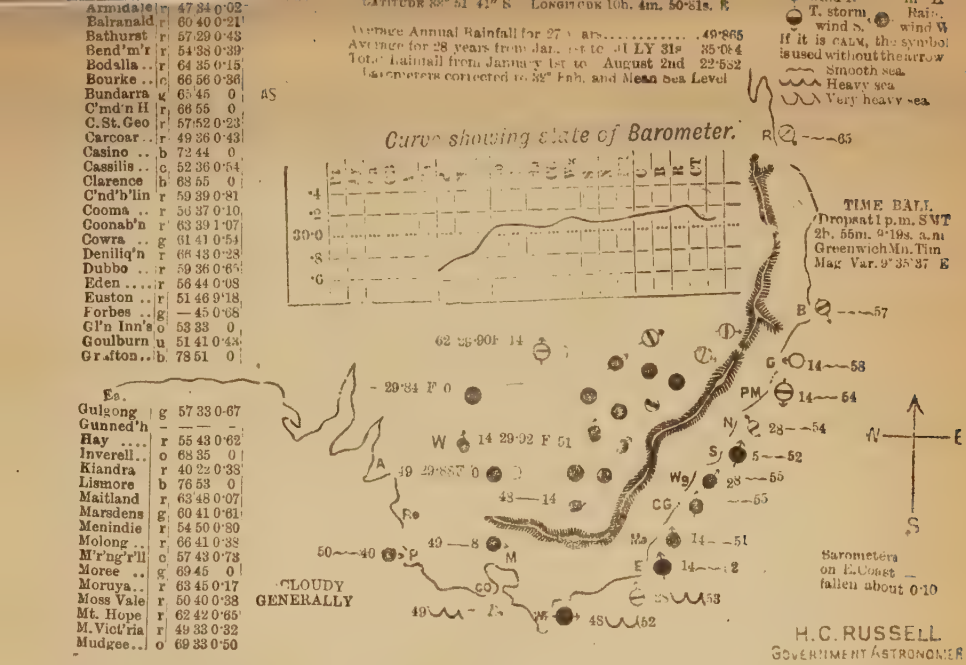
Barwon, 31 feet 8 inches above summer level; Brewarrina, 25 feet 6 inches above summer level; Goodooga, 9 feet 4 inches above summer level; Gundagai, 4 feet above summer level; Louth, 32 feet 5 inches above summer level; Mogil Mogil, over banks; Mungindi, 22 feet 2 inches above summer level; Namoi, 8 feet 10 inches above summer level; Tilpa, 35 feet 9 inches above summer level. Murrumbidgee: At Wagga, 3 foot 9 inches above summer level; at Hay, summer level; at Balranald, 10 inches above summer level. Murray: At Albury, 1 foot above summer level; at Euston, 2 feet above summer level. Darling: At Wentworth, 7 feet 6 inches above summer level; at Pooncarie, 19 feet 10 inches above summer level; at Menindie, 22 feet 6 inches above summer level; at Wilcannia, 30 feet 7 inches above summer level; at Bourke, 31 feet 10 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 2.

Sun rises at 6.53, sets at 5.19; Moon, 8.17 a.m., 7.27 p.m.; Mercury, 7.46 a.m., 7.7 p.m.; Venus, 4.59 a.m., 2.53 p.m.; Mars, 10.3 a.m., 10.44 p.m.; Jupiter, 9.31 a.m., 9.35 p.m.; Saturn, 5.24 a.m., 3.22 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison: 9.42 a.m., 10.4 p.m.

Armidale	r	47 34	0·02
Balranald	r	60 40	0·21
Bathurst	r	57 29	0·43
Bend'm'r	r	54 38	0·39
Bodalla ..	r	64 35	0·15
Bourke ..	c	66 56	0·36
Bundarra	g	65 45	0
C'md'n H	r	66 55	0
C. St. Geo	r	57 52	0·23
Carcoar ..	r	49 36	0·43
Casino ..	b	72 44	0
Cassilis ..	c	52 36	0·54
Clarence	b	68 55	0
C'nd'b'lin	r	59 39	0·81
Cooma ..	r	56 37	0·10
Coonab'n	r	63 39	1·07
Cowra ..	g	61 41	0·54
Deniliq'n	r	66 43	0·23
Dubbo ..	r	59 36	0·65
Eden	r	56 44	0·08
Euston ..	r	51 46	9·18
Forbes ..	g	— 45	0·08
Gl'n Inn's	o	53 33	0
Goulburn	u	51 41	0·43
Grafton ..	b	78 51	0
Gulgong	g	57 33	0·67
Gunned'h	–	— —	–
Hay	r	55 43	0·62
Inverell ..	o	68 35	0
Kiandra	r	40 22	0·38
Lismore	b	76 53	0
Maitland	r	63 48	0·07
Marsdens	g	60 41	0·61
Menindie	r	54 50	0·80
Molong ..	r	66 41	0·38
M'r'ng'r'll	o	57 43	0·73
Moree ..	g	69 45	0
Moruya ..	r	63 45	0·17
Moss Vale	r	50 40	0·38
Mt. Hope	r	62 42	0·65
M. Vict'ria	r	49 33	0·32
Mudgee ..	o	69 33	0·50
M'rr'm'bh	r	63 37	0·70
M'rr'r'ndi	r	55 —	0·43
Mus'br'k	g	61 42	0·45
Narrabri	r	61 38	0·54
Newcastle	g	64 53	0·11
Orange ..	r	50 40	0·90
Picton ..	r	57 48	0·31
P. M'q'rie	g	65 50	0·17
P. St'ph'n	r	62 43	0·19
Q'nbeyan	r	51 36	0·27
Quirindi	[illegible]	69 47	0·37
[illegible]	r	62 42	8·22
[illegible]	r	58 51	0·34
Tara'r'th	r	66 46	0·43
Taralga ..	r	59 32	0·60
Taree	r	64 52	0·20
T'nt'rfield	g	62 51	0
Wagga ..	r	61 36	0·40
Walcha ..	c	52 35	0·25
Walgett ..	r	63 44	0·87
Warrah ..	r	63 42	0·46
W'ntw'rth	o	54 49	0·29
Wilcannia	g	— —	0·21
W'll'ng'ng	r	63 53	0·37
Young ..	r	52 42	0·57



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature. Rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast-station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Bordn; A, Adelaide; Ke, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Lake Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with S.E. to N.E. winds, risen barometers, and smooth sea. Rough sea at Esperance Bay. Extremes of barometers and temperature: Perth, 30·17 and 47°; Cossack, 29·92; and Carnarvon, 65°.

South Australia.—Generally cloudy and gloomy, with light rain in places. Fine between Farina and Tennant's Creek. Rain recorded north of Barrow; greatest at Port Augusta and Hergott, at which places 1·77 and 1·00 inch fell respectively; over the rest of the colony from 50 to 80 points have been recorded. Winds are generally light, from N. to N.W., and the sea smooth. Extremes of barometers and temperature: M'Donnell Bay, 29·73 and 73°; Eucla, 29·87 and 53°.

Victoria.—Generally light misty rain, with fresh E. winds, fallen barometers, and rough sea; foggy and squally on coast. Rainfall very general, the highest being 0·49 at Hamilton; and the lowest, 0·11, at Melbourne. Extremes of barometers and temperature: Cape Otway, 29·87; Echuca, 29·72; Cape Schanck, 52°; and Ballarat, 44°.

Tasmania.—Generally raining, with light E. winds and calms, slightly fallen barometers, and smooth sea; rough sea at Circular Heads; foggy at Hobart. Rainfall, from 10 to 12 points on north coast. Extremes of barometers and temperature: Hobart, 30·19; Circular Head, 30·00; Southport, 41°; and Falmouth, 51°.

New Zealand.—Generally fine, with S.E. to S.W. winds; showery at Wellington; strong S.E. winds at New Plymouth and Gisborne. Barometers: Russell, 29·5; Wellington, 29·7; and Bluff, 29·9.

New South Wales.—Generally raining, more or less heavily, with light N.E. to N.W. winds, fallen barometers, mild temperature, and smooth sea. Light rain fallen generally (during the last 48 hours), but principally in south parts, and heaviest west of the range. Extremes of barometers and temperature, at 9 a.m.: Clarence, 30·19; Menindie, 29·84; Bourke, 62°; and Kiandra, 37°. Reading of standard barometer at Sydney, corrected to 32° Fah., and mean sea level at 9 a.m.: 30·072. Extra stations: Temora, 0·82, rain fallen, and still raining; Nowra, max. 59°, min. 48°, 0·35 inch rain, and cloudy; Brewarrina, max. 62°, min. 51°, 1·13 inch rain, overcast. For further particulars see map.

Queensland.—Generally cloudy and gloomy, with S.E. winds, risen barometers, and moderate sea. One point rain at Townsville. Extremes of barometers and temperature: Brisbane, 30·18 and 57°; Townsville, 29·84; and Cooktown, 82°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.E., 24, fine, smooth sea, temperature 52°; Cape Otway, E.N.E., 24, showery scud from N.E., clearing in S.W., temperature 52°; Melbourne, E., showery, temperature 57°; Wilson's Promontory, N.E., 42, squally with rain, rough sea, temperature 52°.

New South Wales.—Menindie, W., 28, cloudy, temperature 62°; Wentworth, W.N.W., showery, temperature 50°; Deniliquin, N.W., raining, temperature 58°; Eden, E., 28, raining, heavy easterly sea, temperature 55°; Moruya, N.W., 14, raining, smooth sea, temperature 52°; Cape St. George, S., 40, thick rain, moderate sea, temperature 57°; Sydney, N.E., 6, raining, smooth sea, temperature 55°; Port Macquarie, N., 14, raining, temperature 61°; Clarence River, N., 10, cloudy, smooth sea, temperature 68°; Walgett, N.W., cloudy, temperature 62°; Dubbo, calm, raining, temperature 58°; Goulburn, calm, showery, temperature 56°; Tumut, rain up to 9 a.m., ·42; to 3 p.m., ·10; in all, 1·52.

STATE OF RIVERS.

Barwon, 38 feet above summer level; Brewarrina, 25 feet above summer level; Goodooga, 9 feet 8 inches above summer level; Gundagai, 4 feet above summer level; Louth, 32 feet 7 inches above summer level; Mogil Mogil, over banks; Mungindi, 23 feet 10 inches above summer level; Namoi, 14 feet 6 inches above summer level; Tilpa, 36 feet 6 inches above summer level. Murrumbidgee: At Wagga, 4 feet above summer level; at Hay, below summer level; at Balranald, 10 inches above summer level. Murray: At Albury, 2 feet 3 inches above summer level; at Euston, 1 foot 10 inches above summer level. Darling: At Wentworth, 7 feet 8 inches above summer level; at Pooncarie, 19 feet 11 inches above summer level; at Menindie, 22 feet 8 inches above summer level; at Wilcannia, 30 feet 9 inches above summer level; at Bourke, 30 feet 7 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 3.

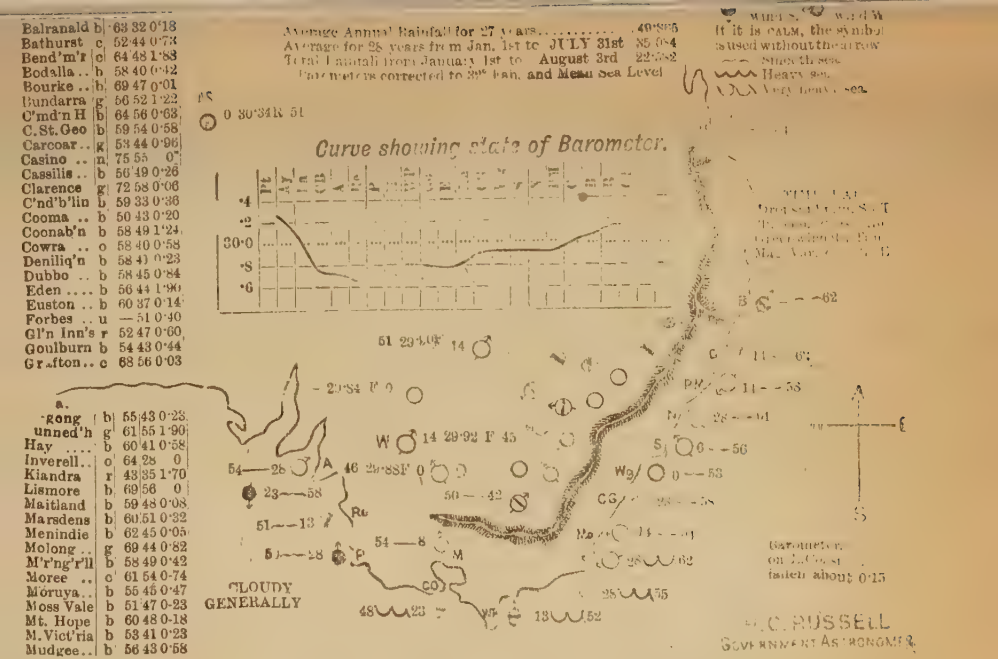
Sun rises at 6.52, sets at 5.20; Moon, 9 a.m., 8.36 p.m.; Mercury, 7.41 a.m., 7.3 p.m.; Venus, 5.0 a.m., 2.55 p.m.; Mars, 10.1 a.m., 10.43 p.m.; Jupiter, 9.28 a.m., 9.32 p.m.; Saturn, 5.21 a.m., 3.19 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison: 10.25 a.m., 10.46 p.m.

Balranald	b	63	32 0·18
Bathurst	c	52	44 0·73
Bend'm'r	c	64	48 1·88
Bodalla ..	b	58	40 0·42
Bourke ..	b	69	47 0·01
Bundarra	g	56	52 1·22
C'md'n H	b	64	56 0·63
C. St. Geo	b	59	54 0·58
Carcoar ..	g	53	44 0·96
Casino ..	n	75	55 0·
Cassilis ..	b	56	49 0·26
Clarence	g	72	58 0·06
C'nd'b'lin	b	59	33 0·36
Cooma ..	b	50	43 0·20
Coonab'n	b	58	49 1·24
Cowra ..	o	58	40 0·58
Denilig'n	b	58	43 0·23
Dubbo ..	b	58	45 0·84
Eden	b	56	44 1·90
Euston ..	b	60	37 0·14
Forbes ..	u	—	51 0·40
Gl'n Inn's	r	52	47 0·60
Goulburn	b	54	43 0·44
Grafton ..	c	68	56 0·03
·Rong ·	b	55	43 0·23
unned'h	g	61	55 1·90
Hay	b	60	41 0·58
Inverell ..	o	64	28 0
Kiandra	r	43	35 1·70
Lismore	b	69	56 0
Maitland	b	59	48 0·08
Marsdens	b	60	51 0·32
Menindie	b	62	45 0·05
Molong ..	g	69	44 0·82
M'r'ng'r'll	b	58	49 0·42
Moree ..	c	61	54 0·74
Moruya ..	b	55	45 0·47
Moss Vale	b	51	47 0·23
Mt. Hope	b	60	48 0·18
M. Vict'ria	b	53	41 0·23
Mudgee ..	b	56	43 0·58
M'rr'm'bh	g	55	46 0·62
M'rr'r'ndi	b	58	— 0·80
Mus'br'k	b	65	49 0·27
Narrabri	g	60	46 1·53
Newcastle	b	62	54 0·19
Orange ..	g	51	41 0·53
Picton ..	b	53	43 0·41
P. M'q'rie	b	61	53 0·54
P. St'ph'n	b	60	47 0·21
Q'nbeyan	b	53	45 0·87
Quirindi	r	60	52 0·90
Singleton	b	59	54 0·10
SYDNEY ..	h	57	52 0·34
Tamw'rth	g	57	50 1·50
Taralga ..	b	62	30 0·59
Taree	b	59	51 0·29
T'nt'rfield	r	70	47 0·60
Wagga ..	b	57	48 0·55
Walcha ..	c	54	25 1·14
Walgett ..	c	63	55 1·25
Warrah ..	b	60	41 1·01
W'ntw'rth	b	58	35 0·17
Wilcannia	b	—	— 0
W'll'ng'ng	b	60	51 0·30
Young ..	b	55	47 0·75

Average Annual Rainfall for 27 years..... 40·885
Average for 28 years from Jan. 1st to JULY 31st 35·064
Total Rainfall from January 1st to August 3rd 22·352
Rain gauges corrected to 32° Fah. and Mean Sea Level

If it is CALM, the symbol is used without the arrow
Smooth sea.
Heavy sea.
Very heavy sea.



E. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., 0 standing for blue sky; c, detached clouds; d, drizzling rain; r, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature. R.m. the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each observation the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with it, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown. P, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; W L, Wilson's Promontory; Go, Gabo; E, Eden; Mo, Moruya; G B, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Cape Byron; R, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, Hay, and Inverell. The barometer curve enables one at a glance to trace the systems preceding them, and southerly following.

Western Australia.—Albany, showery from south, 27 points already fallen, barometer 30·17; Perth, fine, with S.E. wind, rainfall 0·39, and barometers 30·30. In north parts generally fine, with S.E. winds and smooth sea.

South Australia.—Generally cloudy and gloomy, and in places raining. Fine between Hergott and Barrow. Winds rather strong from N.W., and sea moderate. Light rain recorded south of Blinman; greatest at Robe, Tennant's Creek, and over Mount Lofty Ranges, where from ¼ to 1½ inch fell. Squally on coast.

Victoria.—Generally cloudy, gloomy, and raining, with fresh N.E. to N.W. wind, fallen barometers, and rough sea. Heavy rain at Portland; passing showers of misty rain at Cape Schanck and Ballarat. Rain fallen generally; greatest at Wilson's Promontory, at which place over three-quarters of an inch fell. Squally on coast.

Tasmania.—Cloudy in north, and raining in south parts, with fresh easterly winds and rough sea. Heavy rain at Southport; 0·35 inch already fallen. Rainfall at Low Head 0·70, and at Hobart 0·34.

New Zealand.—On North Island fine, with S.E. to S.W. winds. At Bluff passing showers, with south wind. Barometers: Russell, 29·7; Gisborne, 29·5; Wellington, 29·6; and Bluff, 29·8. At the two first places strong S.E. and S.W. winds are blowing.

New South Wales.—Generally fine and mild, with clouds and light rain at a few places along the range; light westerly winds, fallen barometers, and moderate sea. During the last 24 hours rain has fallen throughout the colony, generally from 20 to 50 points, but sixteen stations report from ¾ inch to 1¼ inch; while six report above 1½ but less than 2 in. Nearly all the heavy rain fell west of the range, in north parts. Barometer at Sydney corrected to 32° Fah., and mean sea level at 9 a.m.: 29·936. Extra stations: Nowra, max. 58°, min. 44°, rainfall 0·20, and fine; Brewarrina, max. 56°, min. 45°, rainfall 0·13, and fine; Camden, rain 0·52; Temora, rainfall 0·50; Bega, 0·42; Gundaroo, 1·40 rain. Shocks of earthquake were felt at the following places: Bodalla, shock of earthquake last night at 6.50 p.m., travelling N. to S.; Bega, shock of earthquake last night at 8.54, travelling S.E. to N.W.; Cape St. George, shock of earthquake last night at 9.50. For further particulars see map.

Queensland.—Generally cloudy, with W.E. and S.E. winds, and moderate sea. Rough sea at Townsville. Extremes of barometers and temperature: Rockhampton, 30·17; Brisbane, 30·11; Townsville, 29·77; and Cooktown, 75°.

9 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 37, cloudy, smooth sea, temperature 54°; Cape Otway, N., 23, cloudy, smooth sea, temperature 53°; Melbourne, E., 18, cloudy and squally, temperature 55°; Cape Schanck, N.W., 23, gloomy, squally, rough sea, temperature 53°; Wilson's Promontory, N., 13, cloudy, rough sea, temperature 60°.

New South Wales.—Menindie, S.W., 28, dull, temperature 60°; Wentworth, N.W., dull and cloudy, temperature 54°; Deniliquin, calm, fine but cloudy, temperature 62°; Eden, W., 14, fine, smooth sea, temperature 58°; Moruya, W.N.W., 29, fine, smooth sea, temperature 67°; Cape St. George, W., 29, fine, moderate sea, temperature 66°; Sydney, W.N.W., 12, fine, smooth sea, temperature 66°; Newcastle, N.W., 14, fine, smooth sea, temperature 66°; Port Macquarie, N.E., 14, fine, smooth sea, temperature 73°; Clarence River, N.E., 14, fine, smooth sea, temperature 75°; Walgett, N.W., dull and cloudy, temperature 63°; Dubbo, calm, fine, temperature 61°; Goulburn, N.W., 14, fine, temperature 57°.

STATE OF RIVERS.

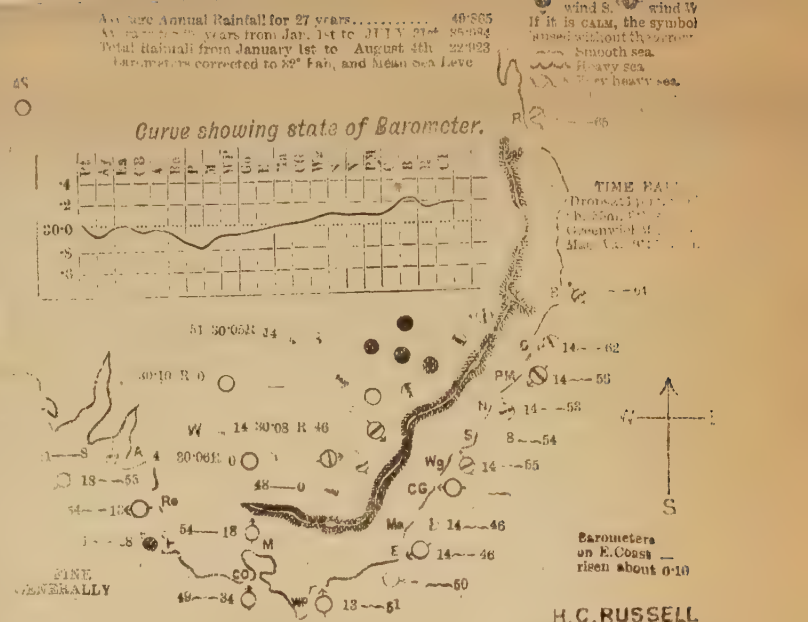
Barwon, 36 feet 2 inches above summer level; Brewarrina, 24 feet 6 inches above summer level; Goodooga, 10 feet 11 inches above summer level; Gundagai, 4 feet 3 inches above summer level; Louth, 32 feet 5 inches above summer level; Mogil Mogil, over banks; Mungindi, 24 feet 6 inches above summer level; Namoi, 17 feet above summer level; Tilpa, 36 feet 8 inches above summer level. Murrumbidgee: At Wagga, 6 feet 3 inches above summer level; at Hay, below summer level; at Balranald, 11 inches above summer level. Murray: At Albury, 2 feet 6 inches above summer level; at Euston, 1 foot 10 inches above summer level. Darling: At Wentworth, 7 feet 10 inches above summer level; at Pooncarie, 20 feet 1 inch above summer level; at Menindie, 22 feet 9 inches above summer level; at Wilcannia, 30 feet 11 inches above summer level; at Bourke, 30 feet above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 4.

Sun rises at 6.51, sets at 5.20; Moon, 9.40 a.m., 9.42 p.m.; Mercury, 7.37 a.m., 6.59 p.m.; Venus, 5.1 a.m., 2.56 p.m.; Mars, 9.58 a.m., 10.42 p.m.; Jupiter, 9.24 a.m., 9.28 p.m.; Saturn, 5.17 a.m., 3.15 p.m. Full Moon, 15th; New Moon, 29th.
High water at Fort Denison, August 4: 11.7 a.m., 11.28 p.m.

Balranald	c	63	34	0
Bathurst	b	59	37	0
Bend'm'r	r	56	47	0·01
Bodalla ..	c	78	33	0
Bourke ..	r	65	50	0
Bundarra	g	69	51	0
C'md'n H	g	71	54	0
C. St. Geo	b	70	60	0
Carcoar ..	g	52	41	0
Casino ..	u	80	57	0
Cassilis ..	o	59	42	0
Clarence	c	73	61	0
C'nd'b'lin	r	60	35	0
Cooma ..	b	58	29	0
Coonab'n	g	60	42	0
Cowra ..	g	60	45	0
Deniliq'n	g	61	42	0
Dubbo ..	c	62	40	0
Eden	b	59	43	0
Euston ..	g	62	37	0
Forbes ..	u	—	40	0
G'ba Inn's	c	58	46	0
Goulburn	g	57	39	0
Grafton ..	u	86	57	0
Ea.				
Gulgong	g			
Gunned'h	r			
Hay	c			
Inverell ..	o			
Kiandra	c			
Lismore	g			
Maitland	g			
Marsdens	c			
Menindie	b			
Molong ..	c			
M'r'ng'r'll	g			
Moree ..	r			
Moruya ..	g			
Moss Vale	g			
Mt. Hope	g			
M. Vict'ria	c			
Mudgee ..	c			
M'rr'm'bh	c	63	39	0
M'rr'r'ndi	o	60	—	0
Mus'br'k	g	71	45	0
Narrabri	r	63	36	0
Newcastle	g	70	52	0
Orange ..	b	58	36	0
Picton ..	c	65	43	0
P. M'q'rie	g	72	51	0
P. St'ph'n	g	67	47	0
Q'nbeyan	b	54	44	0
Quirindi	g	66	49	0·01
Singleton	g	60	51	0
Sydney ..	g	66	50	0
Tamw'rth	b	—	—	0
Taralga ..	g	55	38	0
Taree	g	73	52	0
T'nt'rfield	g	57	51	0
Wagga ..	c	62	41	0
Walcha ..	n	57	41	0
Walgett ..	r	62	51	0
Warrah ..	c	61	47	0
W'ntw'rth	g	61	44	0·02
Wilcannia	g	—	—	0
Wl'ng'ng	u	70	47	0
Young ..	o	63	46	0

Average Annual Rainfall for 27 years..... 49·865
Average for 27 years from Jan. 1st to JULY 31st 25·034
Total Rainfall from January 1st to August 4th 22·923
Barometers corrected to 32° Fah., and Mean Sea Level



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine; in north parts light E. winds; in south light N. winds. Barometers have risen slightly. The sea is smooth, and no rain has fallen. Extremes of barometers and temperature: Ashburton, 30·16; Albany, 29·81; Carnarvon, 73°; and Esperance Bay, 43°.

South Australia.—Generally cloudy and gloomy inland to Port Darwin, but scattered clouds on coast; fine between Beltana and Alice Springs. Winds are generally light from N. and N.W.; barometers have risen, and the sea is moderate, but rough at Cape Borda. Light rain recorded south of Wilson; greatest over Mount Lofty Ranges and in S.E. parts; at Mount Gambier 53 points were recorded. In Northern Territory the rain has been heavy; Tennant's Creek and Daly Waters report 1·53 and 1·01 inch respectively. Extremes of barometers and temperature: Port Augusta, 30·10; M'Donnell Bay, 29·73; Cape Borda, 55°; and Eucla, 50°.

Victoria.—Generally fine, with strong north wind, risen barometers, and moderate sea. Sea rising at Cape Otway; squally along the entire coast; and passing showers of light rain at Omeo and Portland. Rainfall has been general, being highest at Portland, from whence 0·78 inch is reported. Extremes of barometers and temperature: Omeo, 29·95 and 46°, Portland, 29·75, and Horsham, 53°.

Tasmania.—Generally raining and gloomy, with light variable winds and rough sea. Foggy at Hobart. Rain has fallen generally, but heaviest in south parts, where three-quarters of an inch is reported from several places.

New Zealand.—Passing showers at Bluff, and on West coast. Wellington reports nine points rain fallen, and squally with hail during the night. Barometers: Russell, 29·7; Wellington, 29·6, and Bluff, 29·8.

New South Wales.—Cloudy and dull throughout the colony, with light westerly winds on the coast (calms inland), slightly risen barometers, mild temperature, and smooth sea. Raining lightly in districts along Barwon, Namoi, and Gwyder rivers. Light rain recorded at a few scattered places. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·10; Eden, 29·93; Clarence, 62°; and Cooma, 35°. Reading of standard barometer at Sydney corrected to 32° Fah., and mean sea level at 9 a.m.: 30·060. Extra stations: Brewarrina, max. 62°, min. 45°, overcast; Hill End and Coonamble, calm and threatening rain. For further particulars see map.

Queensland.—Generally cloudy and gloomy, with westerly winds in south, and S.E. winds in north parts; slightly risen barometers, and moderate sea. Extremes of barometers and temperature: Brisbane, 30·26 and 64°; Townsville, 29·73; and Cooktown, 76°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 34, fine, smooth sea, temperature 57°; Cape Otway, N.W., 34, misty, rough sea, temperature 55°; Melbourne, N.W., 18, fine, temperature 60°; Cape Schanck, N.W., 23, squally and misty, rough sea, temperature 52°; Wilson's Promontory, N.W., 8, fine but cloudy, smooth sea, temperature 60°; Lakes Entrance, N.E., 13, fine but cloudy, smooth sea, temperature 50°.

New South Wales.—Menindie, S.E., 14, cloudy, temperature 62°; Wentworth, N.., warm and threatening, temperature 55°; Deniliquin, calm, fine but cloudy, temperature 64°; Eden, N.E., 14, fine, smooth sea, temperature 56°; Moruya, N.E., 14, overcast and dull, smooth sea, temperature 61°; Cape St. George, W.N.W., 28, cloudy, moderate sea, temperature 58°; Sydney, W.N.W., 4, overcast and dull, smooth sea, temperature 57°; Newcastle, N.W., 28, dull, smooth sea, temperature 58°; Port Macquarie, calm, overcast and dull, smooth sea, temperature 63°; Clarence River, S.W., 14, raining, smooth sea, temperature 65°; Walgett, N.W., 14, raining, temperature 60°; Dubbo, calm, raining, temperature 57°; Goulburn, N.W., 14, fine, temperature 56°.

STATE OF RIVERS.

Barwon, 39 feet 10 inches above summer level; Brewarrina, 25 feet above summer level; Goodooga, 11 feet above summer level; Gundagai, 6 feet 4 inches above summer level; Louth, 32 feet above summer level; Mogil Mogil, over banks; Mungindi, 23 feet 10 inches above summer level; Namoi, 18 feet 6 inches above summer level; Tilpa, 36 feet 9 inches above summer level. Murrumbidgee: At Wagga, 3 feet 9 inches above summer level; at Hay, below summer level; at Balranald, 8 inches above summer level. Murray: At Albury, 2 feet 6 inches above summer level; at Euston, 1 foot 9 inches above summer level. Darling: At Wentworth, 7 feet 10 inches above summer level; at Pooncarie, 20 feet 2 inches above summer level; at Menindie, 22 feet 10 inches above summer level; at Wilcannia, 31 feet above summer level; at Bourke, 29 feet 6 inches above summer level.

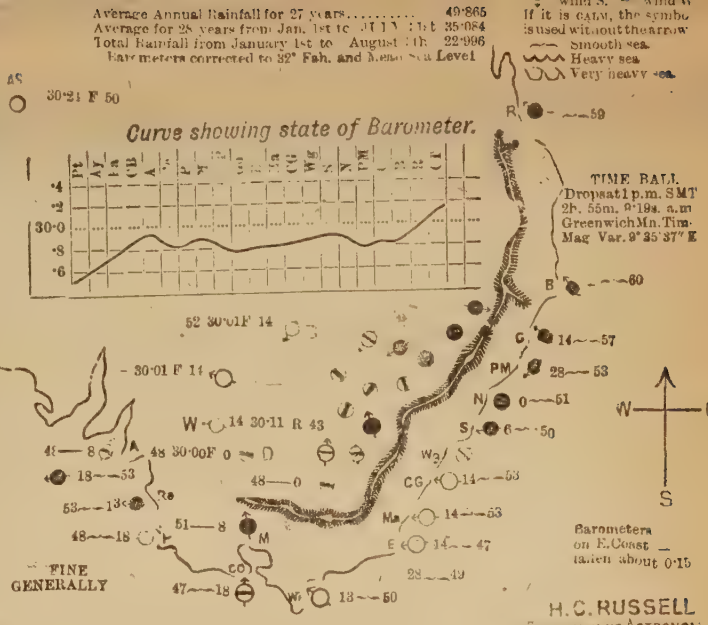
ASTRONOMICAL MEMORANDA FOR AUGUST 5.

Sun rises at 6.50, sets at 5.21; Moon, 10.20 a.m., 10.46 p.m.; Mercury, 7.31 a.m., 6.55 p.m.; Venus, 5.2 a.m., 2.58 p.m.; Mars, 9.56 a.m., 10.41 p.m.; Jupiter, 9.21 a.m., 9.25 p.m.; Saturn, 5.14 a.m., 3.12 p.m. Full Moon, 15th; New Moon, 29th.
High water at Fort Denison, August 5: 11.50 a.m., —— p.m.

Balranald	b	63	32	0·20
Bathurst	c	57	41	0·07
Bend'm'r	r	55	46	0·72
Bodalla ..	b	66	36	0
Bourke ..	b	66	48	0
Bundarra	r	55	48	0·73
C'mdn H	r	62	53	0·41
C. St. Geo	b	63	59	0
Carcoar ..	r	50	43	0·09
Casino ..	r	68	54	0·70
Cassilis ..	o	53	47	0·35
Clarence	r	67	57	1·18
C'nd'b'lin	g	58	31	0
Cooma ..	n	61	31	0
Coonab'n	n	58	44	0·51
Cowra ..	g	60	45	0
Deniliq'n	c	65	42	0
Dubbo ..	b	54	41	0·15
Eden	b	57	44	0
Euston ..	u	72	40	0
Forbes ..	g	—	46	0
Gl'n Inn's	r	57	46	1·05
Goulburn	g	55	41	0·
Gr.fton ..	r	67	54	1·22
Ea.				
Gulgong	g	56	38	0·45
Gunned'h	r	52	47	0·72
Hay	c	65	40	0·10
Inverell ..	r	63	28	0·89
Kiandra	g	40	32	0·06
Lismore	r	68	58	0·52
Maitland	g	62	50	0·23
Marsdens	c	60	48	0
Menindie	b	64	48	0
Molong ..	o	55	40	0
M'r'ng'r'll	g	62	49	0·03
Moree ..	r	56	47	0·87
Moruya ..	b	66	45	0
Moss Vale	u	51	44	0
Mt. Hope	f	59	37	0
M. Vict'ria	c	50	37	0·24
Mudgee ..	g	54	33	0·22
M'r'm'bh	o	55	45'	0
M'r'r'ndi	r	55	—	0·94
Mus'br'k	g	65	46	0·39
Narrabri	r	60	39	0·91
Newcastle	r	59	49	0·33
Orange ..	o	50	37	0
Picton ..	b	57	47	0·02
P. M'q'rie	r	64	52	0·58
P. St'ph'n	r	60	46	0·51
Q'nbeyan	g	51	45	0
Quirindi	r	54	47	0·63
Singleton	g	—	53	0·30
SYDNEY ..	g	57	50	0·07
Tamw'rth	r	54	43	0·63
Taralga ..	g	51	30	0
Taree	g	62	52	0·48
T'nt'rfield	g	67	51	1·34
Wagga ..	c	61	43	0·24
Walcha ..	r	57	40	0·55
Walgett ..	o	55	47	0·56
Warrah ..	g	62	50	0·61
W'ntw'rth	g	64	40	0·05
Wilcannia	b	—	—	0
W'll'ng'ng	u	61	53	0·01
Young ..	r	59	45	0·11

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to JULY 31st 35·084
Total Rainfall from January 1st to August 10th 22·996
Barometers corrected to 32° Fah. and Mean Sea Level

If it is CALM, the symbo is used without the arrow
Smooth sea.
Heavy sea
Very heavy sea.



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; rn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and threatening rain, with fresh squally N. to W. wind, fallen barometers, and smooth sea. Rough sea at Geraldton. Rainfall: Albany, 0·61; Esperance Bay, 0·13; Perth, 1·09; Geraldton, 0·62; and Carnarvon, 0·03. Extremes of barometers and temperature: Ashburton, 30·03; Esperance Bay, 29·49 and 52°; Carnarvon, 74°.

South Australia.—Generally fine inland; on and near coast few scattered clouds, with light N. to N.W. winds. Passing showers of light rain at Robe, M'Donnell Bay, and Cape Borda. Light rain recorded south of Quorn; greatest over Mount Lofty Ranges; Crafer's, Robe, Adelaide, Port Lincoln, and Cape Borda report 0·50, 0·36, 0·17, 0·15, and 0·13 inch respectively. Extremes of barometers and temperature:—On coast: Port Augusta, 30·05; Eucla, 29·77 and 57°; and M'Donnell Bay, 49°. In Northern Territory: Daly Waters, 30·17 and 62°: Port Darwin, 29·92 and 72°.

Victoria.—Generally fine, with fresh N. to E. winds, fallen barometers, and moderate sea. Passing showers at Melbourne; squally and misty on coast. Rainfall:—Portland, 0·14; Hamilton, 0·17; Ballarat and Omeo, each 0·01. Lake Entrance, heavy dew. Extremes of barometers and temperature: Horsham, 29·94 and 54°; Wilson's Promontory, 29·80; Ballarat and Omeo, 44°.

Tasmania.—Generally fine, with light scattered clouds, light N. to E. winds and moderate sea. Rainfall at Low Heads, 0·17. Extremes of barometers and temperature: Falmouth, 29·86; Hobart, 29·73 and 46°; and Low Heads, 53°.

New Zealand.—During the night hailstorms, heavy showers, snow, and rough sea have been experienced along the east coast. At 9 a.m. it was generally fine, with strong E. to S.E. winds and rough sea. Barometers: Russell and Wellington, 30·1; Bluff, 30°; and Gisborne, 29·9.

Queensland.—At Brisbane and Rockhampton, light rain; at Cape Moreton, showery; gloomy and threatening at Townsville and Cooktown. Rainfall for the above respectively: 0·57, 0·41, 0·28, 0·56, and 0·03. Winds in the south parts W. to N.W.; in north, calm and S.E. wind; sea moderate. Extremes of barometers and temperature: Cooktown, 30·17 and 75°; Townsville, 30·16; and Rockhampton, 59°.

New South Wales.—Along the Darling south of Bourke, and on the coast south of Cape St. George, generally fine and clear. In north parts, raining steadily on both sides of the range. In the remainder of the colony, cloudy, and threatening rain. Winds generally are light, blowing from different points between N.W. and S.W. Barometers and temperature have fallen slightly, and the sea is smooth. Light rain has fallen in the eastern division of the colony generally, but principally in north parts, and heaviest west of the range; 13 stations report ¾ to 1¼ inch fallen during last 24 hours. Extremes of barometers and temperature at a.m.: Wentworth, 30·11; Port Macquarie, 29·79; Clarence, 57° and Kiandra, 30°. Reading of standard barometer at Sydney corrected to 32° Fah., and mean sea level at 9 a.m.: 29·87. Extra stations: Brewarrina, max. 55°, min. 44°, rainfall 0·40 and overcast. Rainfall: Temora, 0·25; Coonamble, 1·00; Hill End, 0·15. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 18, fine, smooth sea temperature 57°; Cape Otway, N.W., 18, passing showers, moderate sea, temperature 52°; Melbourne, S.S.W., 8, cloudy, temperature 54°; Cape Schanck, W., 13, cloudy and misty, smooth sea, temperature 55°; Wilson's Promontory, W., 13, fine, squally, smooth sea, temperature 54°; Lakes Entrance, W., 8, fine but cloudy, smooth sea, temperature 58°.

New South Wales.—Menindie, S.W., 28, fine, temperature 53°; Wentworth, W., 14, dull, temperature 55°; Deniliquin, calm, cloudy, temperature 62°; Moruya, S.S.E., 42, fine, smooth sea, temperature 60°; Cape St. George, S., 42, fine, smooth sea, temperature 60°; Sydney, S.S.W., 14, cloudy and dull, smooth sea, temperature 60°; Newcastle, S.W., 14, dull, smooth sea, temperature 59°; Port Macquarie, S.W., 42, cloudy, smooth sea temperature 58°; Clarence River, N.W., cloudy and dull, smooth sea, temperature 66°; Dubbo, S., showery, temperature 60°; Goulburn, calm, dull, temperature 56°.

STATE OF RIVERS.

Barwon, 40 feet above summer level; Brewarrina, 26 feet above summer level; Goodooga, 11 feet 3 inches above summer level; Gundagai, 6 feet 9 inches above summer level; Louth, 31 feet 8 inches above summer level; Mogil Mogil, over banks; Mungindi, 26 feet above summer level; Namoi, 21 feet 5 inches above summer level; Tilpa, 36 feet 10 inches above summer level. Murrumbidgee: At Wagga, 7 feet 4 inches above summer level; at Hay, below summer level; at Balranald, 8 inches above summer level. Murray: At Albury, 5 feet above summer level; at Euston, 1 foot 8 inches above summer level. Darling: At Wentworth, 7 feet 11 inches above summer level; at Pooncarie, 20 feet 3 inches above summer level; at Menindie, 23 feet above summer level; at Wilcannia, 31 feet 1 inch above summer level; at Bourke, 29 feet 5 inches above summer level.

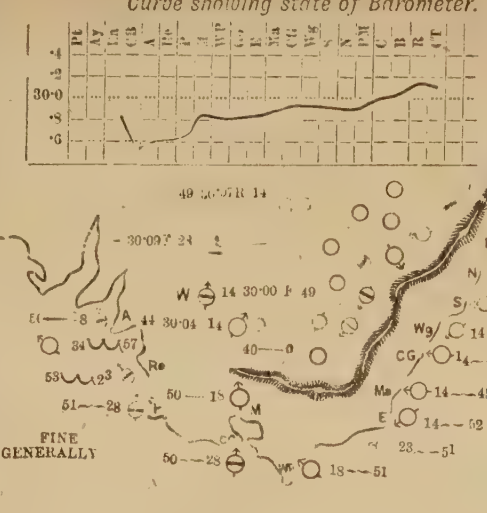
ASTRONOMICAL MEMORANDA FOR AUGUST 6.

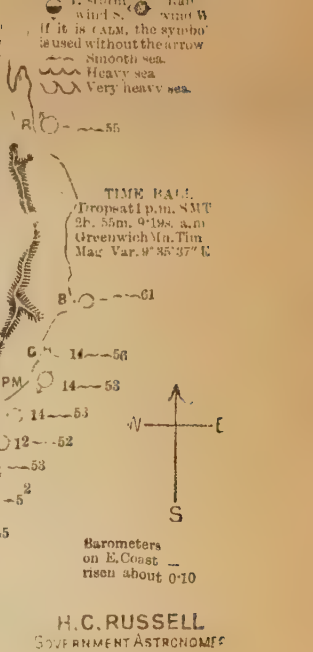
Sun rises at 6.50, sets at 5.22; Moon, 11.0 a.m., 10.48 p.m.; Mercury, 7.27 a.m., 6.51 p.m.; Venus, 5.3 a.m., 2.59 p.m.; Mars, 9.54 a.m., 10.40 p.m.; Jupiter, 9.18 a.m., 9.22 p.m.; Saturn, 5.11 a.m., 3.9 p.m. Full Moon, 15th: New Moon, 29th.

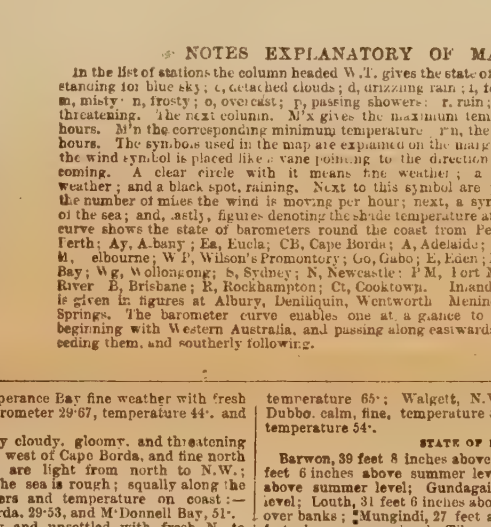
High water at Fort Denison, August 6: 12.11 a.m., 12.34 p.m.

Balranald	b	68	31	0
Bathurst	g	49	37	0·02
Bend'm'r	c	52	40	0·25
Bodalla ..	b	72	33	0
Bourke ..	b	64	43	0
Bundarra	c	55	45	0·30
C'md'n H	b	58	47	0·10
C. St. Geo	b	62	53	0·75
Carcoar ..	g	49	41	0·14
Casino ..	b	72	43	0·05
Cassilis ..	b	52	41	0·13
Clarence	b	67	51	0·08
C'nd'b'lin	g	53	25	0
Cooma ..	n	60	25	0·05
Coonab'n	b	54	32	0
Cowra ..	f	60	44	0·04
Deniliq'n	b	61	34	0
Dubbo ..	h	56	31	0·01
Eden	b	60	47	0
Euston ..	b	67	40	0
Forbes ..	b	—	38	0·19
Gl'n Inn's	g	48	37	0·23
Goulburn	b	56	37	0
Gr'fton ..	b	73	48	0·04
Gulgong	b	54	34	0
Gunned'h	b	55	42	0·07
Hay	c	65	39	0
Inverell ..	f	64	36	0
Kiandra	c	42	29	0
Lismore	b	71	50	0
Maitland	b	60	47	0
Marsdens	n	59	51	0
Menindie	g	62	47	0
Molong ..	o	56	37	0·05
M'r'ng'r'll	b	60	36	0·06
Moree ..	n	57	40	0
Moruya ..	b	53	40	0·01
Moss Vale	b	51	40	0
Mt. Hope	g	58	46	0
M. Vict'ria	b	49	35	0
Mudgee ..	b	58	35	0·02
M'rr'm'bh	c	62	39	0
M'rr'ndi	b	51	—	0·05
Mus'lbr'k	b	67	38	0
Narrabri	b	52	35	0
Newcastle	b	61	45	0
Orange ..	c	48	36	0·05
Picton ..	b	58	48	0
P. M'q'rie	b	58	46	0·27
P. St'ph'n	b	59	47	0·05
Q'nbeyan	g	54	36	0
Quirindi	b	54	40	0
Singleton	b	53	50	0·02
SYDNEY ..	b	61	49	0
Tamw'rth	n	51	40	0·21
Taralga ..	b	54	32	0
Taree	b	59	48	0·04
T'nt'rfield	c	55	52	0·20
Wagga ..	b	60	36	0·07
Walcha ..	g	56	34	0·13
Walgett ..	b	57	43	0
Warrah ..	b	59	40	0·05
W'ntw'rth	c	62	42	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	64	51	0
Young ..	f	71	39	0·04

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to JULY 31st 35·084
Total Rainfall from January 1st to August 6th 22·998
Barometers corrected to 32° Fah. and mean sea Level







H. C. RUSSELL.
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay fine weather with fresh west wind and rough sea; barometer 29·67, temperature 44°, and rainfall 0·22 inch.

South Australia.—Generally cloudy, gloomy, and threatening rain south of Quorn; cloudy west of Cape Borda, and fine north of Peake; winds generally are light from north to N.W.; barometers have fallen and the sea is rough; squally along the coast. Extremes of barometers and temperature on coast:—Eucla, 29·81 and 58°; Cape Borda, 29·53, and M'Donnell Bay, 51°.

Victoria.—Generally cloudy and unsettled, with fresh N. to N.E. winds, fallen barometers, and smooth to moderate sea, squally and misty on coast. Rainfall: Cape Otway, 0·05; Wilson's Promontory, 0·04; and Omeo, 0·07. Extremes of barometers and temperature: Lakes Entrance, 29·91; Portland, 29·66; Horsham, 55°; and Omeo, 44°.

Tasmania.—Generally fine, with light variable winds, risen barometers, and smooth sea. Frosty at Southport; two points of rain at Low Heads. Extremes of barometers and temperature: Low Heads, 29·85; Falmouth, 29·76 and 48°; and Southport, 43°.

New Zealand.—Rough sea on E. coast. Gloomy at Russell and Wellington, foggy at Bluff, winds variable, and barometers 30·1, 30·0, and 29·9 respectively.

New South Wales.—Generally fine, with light westerly winds, slightly risen barometers, and smooth sea. Frosty, foggy, and cloudy along the range. Quarter of an inch snow fallen at Kiandra. Light rain fallen in north-east parts, and on the Lachlan and Murrumbidgee Rivers. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·09; Eden, 29·86; Clarence, 56°; and Kiandra, 33°. Reading of standard barometer at Sydney, corrected to 32° Fah., and mean sea level at 9 a.m.: 29·960. Extra stations: Brewarrina, max. 61°, min. 37°, fine; Nowra, max. 62°, min. 43°, rainfall 0·03; Temora, rainfall 0·17, and fine weather. For further particulars see map.

Queensland.—Generally fine, with W. to N.W. winds in south, and S. to S.E. winds in north parts, risen barometers, and moderate sea. Rainfall: Brisbane and Rockhampton, 0·08; Cape Moreton, 0·18; Cooktown, 0·02. Extremes of barometers and temperature: Rockhampton, 30·20 and 55°; Townsville, 29·75°; and Cooktown, 76°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N., 34, fine, but cloudy, smooth sea, temperature 58°; Cape Otway, N., 40, cloudy and threatening, smooth sea, temperature 55°; Melbourne, N.N.E., 18, cloudy and gloomy, temperature 56°; Cape Schanck, N., 28, cloudy and misty, rough sea, temperature 58°; Wilson's Promontory, N.N.E., 23, cloudy and gloomy, smooth sea, temperature 55°; Lakes Entrance, N.W., 13, fine but cloudy, smooth sea, temperature 58°.

New South Wales.—Menindie, N.W., 42, fine, temperature 61°; Wentworth, N.W., 28, overcast and threatening, temperature 57°; Deniliquin, calm, fine, temperature 62°; Eden, S.W., 14, fine, smooth sea, temperature 60°; Moruya, N.E., 28, fine, smooth sea, temperature 63°; Cape St. George, S., fine, smooth sea, temperature 59°; Sydney, W.S.W., 14, fine but hazy, smooth sea, temperature 60°; Newcastle, N.W., 14, fine, smooth sea, temperature 62°; Port Macquarie, W., 28, fine, smooth sea, temperature 65°; Clarence River, W.N.W., fine, smooth sea, temperature 65°; Walgett, N.W., 14, fine, temperature 59°; Dubbo, calm, fine, temperature 59°; Goulburn, N.W., 14, fine, temperature 54°.

STATE OF RIVERS.

Barwon, 39 feet 8 inches above summer level; Brewarrina, 27 feet 6 inches above summer level; Goodooga, 11 feet 5 inches above summer level; Gundagai, 5 feet 6 inches above summer level; Louth, 31 feet 6 inches above summer level; Mogil Mogil, over banks; Mungindi, 27 feet above summer level; Namoi, 23 feet above summer level; Tilpa, 36 feet 10 inches above summer level. Murrumbidgee: At Wagga, 8 feet 9 inches above summer level; at Hay, below summer level; at Balranald, 5 inches above summer level. Murray: At Albury, 6 feet above summer level; at Euston, 1 foot 8 inches above summer level. Darling: At Wentworth, 7 feet 10 inches above summer level; at Pooncarie, 20 feet 4 inches above summer level; at Menindie, 23 feet above summer level; at Wilcannia, 31 feet above summer level; at Bourke, 29 feet above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 7.

Sun rises at 6·19, sets at 5.22; Moon, 11.39 a.m., — p.m.; Mercury, 7.13 a.m., 6.47 p.m.; Venus, 5.3 a.m., 3.1 p.m.; Mars, 9.51 a.m., 10.39 p.m.; Jupiter, 9.14 a.m., 9.18 p.m.; Saturn, 5.7 a.m., 3.5 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison, August 7: 12.57 a.m., 1.25 p.m.

METEOROLOGICAL ABSTRACT, JULY, 1886,

with results for the same month during the preceding 27 years.

—	Barometer at 32° Fah. and mn. sea-lev'l.	Temperature in Shade.			Rainfall.	
		Mean Max.	Mean Min.	Mean.	Amount Inches.	No. of days.
1886:						
June	30·231	59·6	48·0	53·8	5·544	18
Average for 28 years ...	30·123	59·3	45·6	52·5	4·276	12
Monthly Extremes:						
Highest ...	30·270	61·9	49·1	54·9	11·952	20
Year ...	1869	1867	1877	1884	1860	1885
Lowest ...	29·968	57·0	42·3	50·7	0·120	4
Year ...	1872	1861	1859	1859	1862	1862,71

Wind.—Prevailing direction, W.; average prevailing direction for 28 years, W.; July, 1886, mean miles per hour, 9·8.

Temperature.—Highest shade temperature, 68·1, on the 8th; highest shade temperature in any July since 1859, 74·9, on the 17th, 1871; lowest shade temperature, 41·7, on the 11th; lowest shade temperature in any July since 1859, 36·0, on the 18th, 1861.

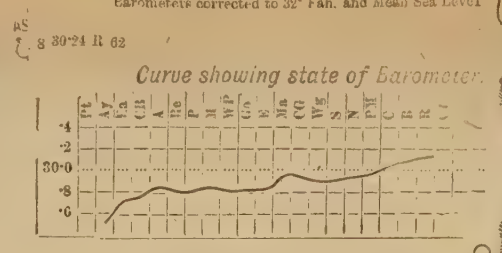
Rainfall.—Greatest fall in one day, 1·650, on the 26th; greatest fall in one day in any July since 1859, 3·703, on the 21st, 1859.

H. C. RUSSELL, Government Astronomer.

Sydney Observatory, August 6, 1886.

Armidale	b	42 38		0
Balranald	b	66 31		0
Bathurst	r	53 41		0·01
Bend'm'r	g	51 38		0
Bodalla ..	b	69 34		0
Bourke ..	b	67 47		0
Bundarra	b	61 51		0
C'md'n H	b	66 51		0
C.St.Geo	b	64 60		0
Carcoar ..	g	50 43		0
Casino ..	b	71 42		0
Cassilis ..	b	54 45		0
Clarence	b	66 50		0
C'nd'b'lin	c	59 31		0
Cooma ..	c	59 37		0
Coonab'n	b	60 34		0
Cowra ..	b	59 42		0
Deniliq'n	b	64 39		0
Dubbo ..	b	60 38		0
Eden	b	61 46		0
Euston ..	b	70 35		0
Forbes ..	b	67 40		0
Gl'n Inn's	b	50 38		0
Goulburn	g	54 40		0·05
Grafton ..	b	78 51		0
Gulgong	c	55 37		0
Gunned'h	b	59 42		0
Hay	b	63 46		0·02
Inverell ..	b	65 36		0
Kiandra	f	41 31		0·43
Lismore	b	74 49		0
Maitland	b	60 43		0
Marsdens	c	60 41		0·06
Menindie	b	64 51		0
Molong ..	r	60 36		0·02
M'r'ng'r'll	b	61 43		0·01
Moree ..	b	66 41		0
Moruya ..	b	64 44		0
Moss Vale	–	—	—	–
Mt. Hope	b	61 46		0
M.Vict'ria	b	48 37		0
Mudgee ..	c	64 37		0
M'rr'm'bh	c	63 43		0
M'rr'r'ndi	b	54	—	0
Mus'br'k	b	66 49		0
Narrabri	b	60 38		0
Newcastle	b	65 51		0
Orange ..	c	48 38		0
Picton ..	b	59 50		0
P. M'q'rie	b	65 41		0
P. St'ph'n	c	61 42		0
Q'nbeyan	u	51 37		0
Quirindi	b	42 31		0
Singleton	b	57 53		0
SYDNEY ..	b	61 52		0
Tamw'rth	–	—	—	0
Taralga ..	g	53 37		0
Taree	b	67 48		0
T'nt'rfield	n	63 35		0
Wagga ..	c	61 44		0·10
Walcha ..	c	48 33		0
Walgett ..	b	60 46		0
Warrah ..	b	59 41		0
W'ntw'rth	b	64 41		0
Wilcannia	b	—	—	0
Wil'ng'ng	b	65 51		0
Young ..	b	66 40		0·03

Average Annual Rainfall for 27 years..... 40·865
Average for 28 years from Jan. 1st to JULY 31st 35·084
Total Rainfall from January 1st to August 7th 22·993
Barometers corrected to 32° Fah. and Mean Sea Level



T. storm, wind S. Rain, wind W
If it is CALM, the symbol is used without the arrow
Smooth sea
Heavy sea
Very heavy sea

TIME BALL.
Drops at 1 p.m. SMT
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag Var. 9° 35′ 37″ E

Barometers on E.Coast — risen about 0·10

FINE GENERALLY

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

H. C. RUSSELL
GOVERNMENT ASTRONOMER

Western Australia.—On south coast cloudy and threatening, with strong squally west winds, low barometers, and rough sea. Rainfall, 0·21 at Albany. Barometers: Albany, 29·46: Esperance Bay, 29·53; and temperature 51 degrees.

South Australia.—Generally fine, with light north to west winds, fallen barometers, and rough sea. Rainfall; M'Donnell Bay, 0·10; Cape Borda, 0·05, Adelaide and Port Lincoln, 0·01. Squally at Cape Borda. Extremes of barometers and temperature on coast:—Port Augusta, 29·92: Eucla, 29·79 and 60°; M'Donnell Bay, 50°. In Northern Territory: Daly Waters, 30·13 and 70°; Port Darwin, 29·95 and 76°.

Victoria.—Generally fine, with light N. to N.W. winds, steady barometers, and smooth sea, squally and misty on coast. Rainfall: Portland, 0·14; Cape Schanck, 0·10; Ballarat, 0·12; Wilson's Promontory, 0·14; and Hamilton, 0·07. Extremes of barometers and temperature: Ballarat, 29·92 and 44°; Wilson's Promontory, 29·73; and Horsham, 54°.

Tasmania.—Generally fine, with light north to west winds. Rough sea off Falmouth; frosty at Southport; and 0·21in. rain fallen at Low Heads. Extremes of barometers and temperature: Low Heads, 29·68 and 52°; Hobart, 29·59 and 48°.

New Zealand.—Squally, with rough sea on west coast. Generally fine, with strong N.E. to N.W. winds. Rough sea at Russell. Showery at Wellington. 0·47in. already fallen. Barometers: Russell, 29·7; Wellington, 29·4; and Bluff, 29·6.

New South Wales.—Generally fine, with light westerly winds, almost steady barometers, and smooth sea, but rough at Eden; cloudy on and near range in southern parts, and raining at a few stations in the districts around Bathurst; light rain recorded at a few stations on and west of the range in south, greatest at Kiandra, where 43 points fell. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·07; Cape St. George, 29·87 and 58; Kiandra, 32°. Reading of the standard barometer at Sydney corrected to 32° Fah.; and mean sea level, at 9 a.m., 29·938. Extra stations: Hill End, raining steadily, and calm. For further particulars see map.

Queensland.—Generally fine, with S.E. to S. winds, risen barometers, and moderate sea; gloomy in north parts, but no rain fallen. Extremes of barometers and temperature: Rockhampton, 30·17 and 55°; Townsville, 29·87; and Cooktown, 74°.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, N., fine, warm temperature 59°; Wentworth, N., fine, temperature 60°; Deniliquin, calm, fine, temperature 64°; Eden, E., 14, fine, little sea, temperature 60°; Moruya, N.E., 28, fine, heavy easterly sea, temperature 56; Cape St. George, W., 30, fine, smooth sea, temperature 66°; Sydney, W.N.W., 10, fine, smooth sea, temperature 68°; Newcastle, W., 10, fine, smooth sea, temperature 69°; Port Macquarie, W., 28, fine, moderate sea, temperature 67°; Clarence River, W., 10, fine, smooth sea, temperature 68°; Walgett, N.W., fine, temperature 66°; Dubbo, W., 14, cloudy, temperature 61°; Goulburn N.W., 10, cloudy, temperature 57°; Brewarrina, S.W., fine.

STATE OF RIVERS.

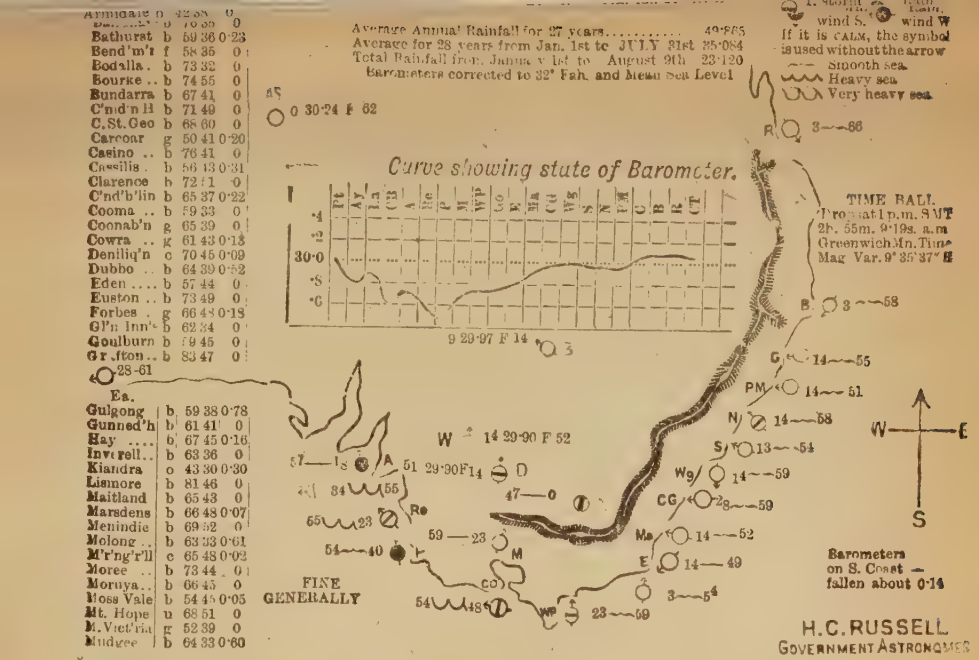
Barwon, 39 feet above summer level; Brewarrina, 28 feet 4 inches above summer level; Goodooga, 11 feet 8 inches above summer level; Gundagai, 5 feet 3 inches above summer level; Louth, 31 feet above summer level; Mogil Mogil, over banks; Mungindi, 27 feet above summer level; Namoi, 24 feet 10 inches above summer level: Tilpa, 36 feet 10 inches above summer level. Murrumbidgee: At Wagga, 7 feet 10 inches above summer level; at Hay, below summer level; at Balranald, 8 inches above summer level. Murray: At Albury, 5 feet 10 inches above summer level; at Euston, 1 foot 7 inches above summer level. Darling: At Wentworth, 7 feet 10 inches above summer level; at Pooncarie, 20 feet above summer level; at Menindie, 23 feet 3 inches above summer level; at Wilcannia, 31 feet 3 inches above summer level: at Bourke, 28 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 9.

Sun rises at 6.47, sets at 5.24; Moon, 1.6 p.m., sets at 1.46 a.m.; Mercury, 7.11 a.m., 6.34 p.m.; Venus, 6.5 a.m., 3.4 p.m.; Mars, 9.46 a.m., 10.37 p.m.; Jupiter, 9.7 a.m., 9.12 p.m.; Saturn, 5.0 a.m., 2.58 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison, August 9: 3.0 a.m., 3.37 p.m.

Armidale	b	52 38	0
Bathurst	b	59 36	0·23
Bend'm'r	f	58 35	0
Bodalla	b	73 32	0
Bourke	b	74 55	0
Bundarra	b	67 41	0
C'md'n H	b	71 49	0
C.St.Geo	b	68 60	0
Carcoar	g	50 41	0·20
Casino	b	76 41	0
Cassilis	b	56 13	0·31
Clarence	b	72 51	0
C'nd'b'lin	b	65 37	0·22
Cooma	b	59 33	0
Coonab'n	g	65 39	0
Cowra	g	61 43	0·13
Deniliq'n	c	70 45	0·09
Dubbo	b	64 39	0·52
Eden	b	57 44	0
Euston	b	73 49	0
Forbes	g	66 48	0·18
Gl'n Inn's	b	62 34	0
Goulburn	b	59 45	0
Gr'fton	b	83 47	0
Ea. Gulgong	b	59 38	0·78
Gunned'h	b	61 41	0
Hay	b	67 45	0·16
Inverell	b	63 36	0
Kiandra	o	43 30	0·30
Lismore	b	81 46	0
Maitland	b	65 43	0
Marsdens	b	66 48	0·07
Menindie	b	69 52	0
Molong	b	63 33	0·61
M'r'ng'r'll	c	65 48	0·02
Moree	b	73 44	0
Moruya	b	66 45	0
Moss Vale	b	54 45	0·05
Mt. Hope	u	68 51	0
Mt. Vict'ria	g	52 39	0
Mudgee	b	64 33	0·60
'rr'm'bh	c	59 45	0·75
M'rr'mdi	b	58 —	0
Mus'br'k	b	66 36	0·20
Narrabri	c	66 41	0
Newcastle	c	61 51	0·01
Orange	g	50 41	1·35
Picton	p	63 43	0·06
P. M'q'rie	b	68 45	0
P. St'ph'n	b	62 40	0·08
Q'nbeyan	u	56 33	0·08
Quirindi	b	68 43	0
Singleton	b	53 48	0·54
Sydney	b	62 51	0·12
Tamw'rth	c	64 39	0
Taralga	b	56 38	0·15
Tarce	b	65 46	0
T'nt'rfield	b	63 45	0
Wagga	o	65 41	0·17
Walcha	n	53 30	0
Walgett	b	69 53	0
Warrah	g	62 43	0
W'ntw'rth	b	71 48	0
Wilcannia	b	— —	0
Wil'ng'ng	b	69 54	0
Young	b	59 44	0·25



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature from the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each station at which the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Showery at Albany and overcast at Perth; 0·48 rain at the former and 0·23 at the latter place; at Esperance Bay 0·01 fell, rough sea also there.

South Australia.—Fine weather, with scattered clouds inland; and to west of Port Lincoln it is cloudy, squally, and showery. Light rain on and near the coast; wind generally N. and W., and the force from 4 to 6; light rain record south of Beltana, the greatest being at M'Donnell Bay, 0·40; Mount Gambier, 0·16; Geraldton, 0·20; Cape Borda, 0·11; Port Augusta, 0·10; Port Lincoln, 0·09; Robe, 0·06; and Adelaide, 0·02. Rough sea at Robe and Cape Borda.

Victoria.—Weather generally cloudy, with a rather rough sea at Cape Schank and Cape Otway. Wind generally between N.E. and N.W., and rather strong. Showery at Portland and Omeo, squally at Wilson's Promontory, Hamilton, and Cape Schanck. Rain recorded at all the stations, as follows:—Portland, 0·22; Wilson's Promontory, 0·16; Cape Schank, 0·12; Lakes Entrance, 0·03; Echuca, 0·01; Horsham, 0·07; Hamilton, 0·01; Ballarat, 0·01; Omeo, 0·06; and Cape Otway, 0·16.

Tasmania.—Fine at Falmouth and Southport, and cloudy at Low Head and Hobart. Wind N.E. to N.W., and strong moderate sea at Falmouth and Southport. Rainfall at Low Head, 0·13; Hobart, 0·02; and at Falmouth 0·15.

New South Wales.—Fine generally, with light wind, between N.E. and N.W., and smooth sea all down the E. coast. Twenty-nine stations have recorded rain since Saturday, the greatest amount being 1·37, at Orange; the barometers generally show a rise. Additional Stations: Brewarrina fine, max. 70, min. 47.

Queensland.—Fine generally, light S.W. breeze at Brisbane, and S.E. at Rockhampton; moderate sea at Cape Moreton.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 54, showery, smooth sea temperature 56; Cape Otway, N.W., 48, cloudy, showery, rough sea, temperature 52°; Melbourne, N.W., 23, squally, temperature 58°; Cape Schanck, W.N.W., 40, overcast, fierce, and squally, high sea, temperature 58°; Wilson's Promontory, N., 28, strong, squally, moderate sea, temperature 65°; Lakes Entrance, N., 23, fine, temperature 62°.

New South Wales.—Menindie, N., fine, temperature 64°, Wentworth, N.W., fine, temperature 66°; Deniliquin, N.N.W.; fine, temperature 67°; Eden, N.N.E., 14, fine, light east sea smooth, temperature 63°; Moruya, N., 42, fine, smooth sea, temperature 69.; Cape St. George, N., 28, fine, smooth sea, temperature 66°; Sydney, N.W., light cloudy, drops of rain, smooth sea, temperature 67°; Newcastle, N.W., moderate fine, temperature 69°; Port Macquarie, N., 14, fine, smooth sea, temperature 72°; Clarence River, N.W., fine, smooth sea, temperature 73°; Walgett, N.W., fine temperature 71°; Dubbo, S.W., 14, fine, temperature 64°; Goulburn, N.W., fine, temperature

STATE OF RIVERS.

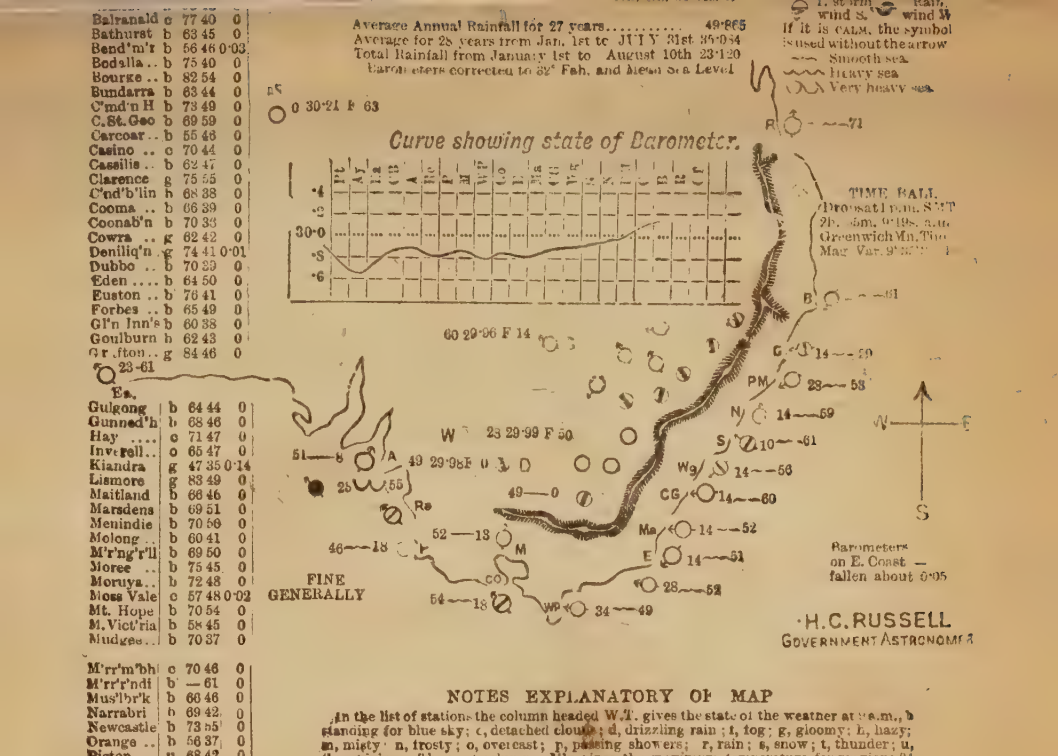
Murrumbidgee: At Wagga, 5 feet 1 inches above summer level at Hay, 5 inches above summer level; at Balranald 7 inches above summer level. Murray: At Albury, 1 foot above summer level; Euston, 1 foot 7 inches at summary. Darling: At Wentworth 7 feet 10 inches above summer level; at Pooncarie, 20 feet 6 inches above summer level; at Menindie, 23 feet 9 inches above summer level; at Wilcannia, 31 feet 6 inches, rising; Bourke 29 feet 5 inches, rising.

ASTRONOMICAL MEMORANDA FOR AUGUST 10.

Sun rises at 6. 6, sets at 5.25; Moon, 1.53 p.m., sets at 2.42 a.m. Mercury, 7.— a.m., 6.3— p.m.; Venus, 5.6 a.m., 3.5 p.m. Mars, 9.14 a.m., 10. 6 p.m. Jupiter, 9.3 a.m., [illegible] Saturn, 1.57 a.m., 2.55 p.m. Full Moon, 15th New Moon, 2[illegible]

High water at Fort Denison, August 10: 4.14 a.m., 4.[illegible]

Balranald	c	77 40	0
Bathurst	b	63 45	0
Bend'n'r	b	56 46	0·03
Bodalla ..	b	75 40	0
Bourke ..	b	82 54	0
Bundarra	b	63 44	0
C'md'n H	b	73 49	0
C.St.Geo	b	69 59	0
Carcoar ..	b	55 48	0
Casino ..	c	70 44	0
Cassilis ..	b	62 47	0
Clarence	g	75 55	0
C'nd'b'lin	b	68 38	0
Cooma ..	b	66 39	0
Coonab'n	b	70 33	0
Cowra ..	g	62 42	0
Deniliq'n	g	74 41	0·01
Dubbo ..	b	70 39	0
Eden	b	64 50	0
Euston ..	b	76 41	0
Forbes ..	b	65 49	0
Gl'n Inn's	b	60 38	0
Goulburn	b	62 43	0
Gr.fton ..	g	84 46	0
Ea.			
Gulgong	b	64 44	0
Gunned'h	b	68 46	0
Hay	c	71 47	0
Inverell ..	o	65 47	0
Kiandra	g	47 35	0·14
Lismore	g	83 49	0
Maitland	b	66 46	0
Marsdens	b	69 51	0
Menindie	b	70 56	0
Molong ..	b	60 41	0
M'r'ng'r'll	b	69 50	0
Moree ..	b	75 45	0
Moruya ..	b	72 48	0
Moss Vale	c	57 48	0·02
Mt. Hope	b	70 54	0
M.Vict'ria	b	58 45	0
Mudgee ..	b	70 37	0
M'rr'm'bh	c	70 46	0
M'rr'ndi	b	— 61	0
Mus'br'k	b	66 46	0
Narrabri	b	69 42	0
Newcastle	b	73 55	0
Orange ..	b	56 37	0
Picton ..	u	68 42	0
P. M'q'rie	b	72 46	0
P. St'ph'n	b	68 50	0
Q'nbeyan	b	59 46	0
Quirindi	b	70 47	0
Singleton	b	61 53	0
SYDNEY ..	c	69 54	0
Tam'w'rth	b	66 44	0
Taralga ..	g	62 44	0
Taree	b	75 46	0
Tent'rfield	c	68 49	0
Wagga ..	g	66 48	0
Walcha	b	60 33	0
Walgett ..	b	71 53	0
Warrah ..	b	61 50	0
W'ntw'rth	b	73 48	0
Wilcannia	b	—.—	0
W'll'ng'ng	o	74 48	0
Young ..	g	71 46	0



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Heavy showers from S.W. at Perth and Albany; gloomy with N.W. wind at Esperance Bay; squally with rough sea along the entire south coast. Rainfall: Albany, 1·22; Perth, 0·47. Extremes of barometers and temperature in south parts: Perth, 29·90 and 47°; Esperance Bay, 29·58 and 57°.

South Australia.—Fine inland, but cloudy and gloomy between Hawker and Hergott; scattered clouds on and near coast. Winds generally are light from N. and N.W., with calms in places. Light rain recorded south of Wyrahurra, greatest at Crafers, 0·60; Adelaide, 0·15; M'Donnell Bay, 0·21; Robe, 0·04; Wallaroo and Port Lincoln, 0·02 and 0·01 respectively. Cape Borda reports: Passing showers from N.W., 0·36 inch already fallen, squally and rough sea. Extremes of barometers and temperature: On coast—Port Augusta, 29·95; Eucla, 29·79 and 61°; M'Donnell Bay, 46°; Northern Territory—Daly Waters, 30·09 and 74°; Port Darwin, 29·92 and 80°.

Victoria.—Generally fine, with fresh north to west winds, risen barometers, and sea moderating. Squally and misty on coast, lightning at Cape Otway. Light rain has fallen generally, having been heaviest at Cape Otway and Portland, at which places nearly half an inch fell. Extremes of barometers and temperature: Ballarat, 29·92; Wilson's Promontory, 29·75; Omeo, 43°; and Horsham, 55°.

Tasmania.—Generally fine, with fresh westerly winds and smooth sea. Light rain fallen generally, the greatest amount being recorded at Low Heads, viz., 0·17 inch. Extremes of barometers and temperature: Low Heads, 29·71 and 49°; Hobart, 29·63 and 45°.

New Zealand.—Generally fine, with variable winds. Showery from S.W. at Wellington, 0·29 inch already fallen. Barometers: Russell, 29·9; Wellington, 29·7; and Bluff, 29·8.

Queensland.—Generally fine, with light variable winds, fallen barometers, and moderate sea. Raining lightly at Rockhampton. Extremes of barometers and temperature: Rockhampton, 30·13; Townsville, 29·83; Cooktown, 89°; and Brisbane, 61°.

New South Wales.—Generally fine and clear, with light winds blowing from different points between N.W. and S.W., slightly fallen barometers, risen temperature, and smooth sea. In extreme N.E. and south parts it is cloudy and gloomy. A few scattered stations in south-west report light rain fallen. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·07; Eden, 29·81; Sydney, 61°; and Kiandra, 44°. The highest temperature in the sun during the last 24 hours reached 107° at Sydney, being the highest recorded since May 10th. Reading of standard barometer at 9 a.m., corrected to 32 Fahr., and mean sea level at Sydney, 29·948. Extra station: Brewarrina, max. 74°, min. 50°, fine but cloudy. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 23, fine but cloudy, smooth sea, temperature 57; Cape Otway, W., Melbourne, N.N.W., 18, temperature 58°; Cape Schanck, W., 13, cloudy and misty, moderate sea, temperature 56°; Wilson's Promontory, W.S.W., 34, squally, with hail, moderate sea, temperature 55°; Lakes Entrance, W., 13, fine, smooth sea, temperature 59°.

New South Wales.—Menindie, N., 14, fine, temperature 63°; Wentworth, N., fine, warm, temperature 59°; Deniliquin, N.W., fine, temperature 65°; Eden, S.E., 11, fine but cloudy, temperature 57°; Moruya, W., 28, fine, smooth sea, temperature 69°; Cape St. George, W., 14, fine, smooth sea, temperature 70°; Sydney, E., 8, fine, smooth sea, temperature 66°; Newcastle, N.W., fine, smooth sea, temperature 74°; Clarence River, W., 14, fine, smooth sea, temperature 69°; Walgett, N.W., 14, fine, temperature 73°; Dubbo, W., 14, fine, temperature 66°; Goulburn, N.W., 14, fine, temperature 58°.

STATE OF RIVERS.

Barwon, 38 feet 10 inches above summer level; Brewarrina, 30 feet 6 inches above summer level; Goodooga, 12 feet 4 inches above summer level; Gundagai, 4 feet 7 inches above summer level; Louth, 29 feet 3 inches above summer level; Mogil Mogil, over banks; Mungindi, 26 feet above summer level; Namoi, over banks; Tilpa, 36 feet 5 inches above summer level. Murrumbidgee: At Wagga, 5 feet 4 inches above summer level; at Hay, 2 feet above summer level; at Balranald, 7 inches above summer level. Murray: At Albury, 3 feet 8 inches above summer level; at Euston, 1 foot 7 inches above summer level. Darling: At Wentworth, 7 feet 10 inches above summer level; at Pooncarie, 20 feet 4 inches above summer level; at Menindie, 23 feet 6 inches above summer level; at Wilcannia, 31 feet 7 inches above summer level; at Bourke, 29 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 11.

Sun rises at 6.45, sets at 5.26; Moon, 2.42 p.m., 3.35 a.m.; Mercury, 7 a.m., 6.21 p.m.; Venus, 5.7 a.m., 3.7 p.m.; Mars, 9.41 a.m., 10.35 p.m.; Jupiter, 9 a.m., 9.6 p.m.; Saturn, 4.53 a.m., 2.51 p.m. Full Moon, 15th; New Moon, 29th.
High water at Fort Denison, August 11: 5.26 a.m., 5.56 p.m.

Balranald	b	67	30	0·06
Bathurst	c	62	36	0·34
Bend'm'r	c	62	45	0·82
Bodalla ..	b	71	42	0
Bourke ..	b	78	66	0·08
Bundarra	b	72	50	0·52
C'md'n H	b	71	50	0
C.St.Geo	b	65	59	0·28
Carcoar	c	58	41	0·87
Casino ..	b	81	52	0·56
Cassilis .	b	64	45	0·31
Clarence	b	73	59	0·42
C'nd'b'lin	b	66	29	0·05
Cooma ..	g	62	34	0·39
Coonab'n	b	70	41	0·68
Cowra ..	c	60	41	0·38
Deniliq'n	b	67	36	0·08
Dubbo ..	b	61	59	0·44
Eden	b	61	55	0·28
Euston ..	b	67	38	0·09
Forbes ..	b	66	47	0·23
Gl'n Inn's	b	61	44	0·25
Goulburn	b	57	36	0·53
Grafton...	b	82	55	0·26
Ea.				
Gu'gong	c	60	39	0·37
Gunned'h	b	71	47	0·43
Hay	b	71	41	0
Inverell..	b	67	37	0
Kiandra	s	51	25	0·73
Lismore	b	80	57	0·14
Maitland	b	69	49	0·36
Marsdens	b	68	45	0·51
Menindie	b	68	47	0
Molong ..	g	60	34	0·34
M'r'ng'r'll	c	70	38	0·43
Moree ..	b	76	48	0·23
Moruya..	b	65	45	0·02
Moss Vale	b	58	39	0·46
Mt. Hope	–	—	—	–
M.Vict'ria	c	60	33	0·24
Mudgee...	g	70	36	0·46
M'rr'mbh'	g	68	37	0·40
M'rr'ndi	b	66	—	0·75
Mu'lbr'k	b	74	43	0·30
Narrabri	b	70	42	0·44
Newcastle	b	72	49	0·24
Orange ..	g	56	34	0·50
Picton ..	b	64	40	0·28
P. M'q'rie	b	72	53	0·03
P. St'ph'n	b	70	46	0·35
Q'nbeyan	c	60	41	0·29
Quirindi	b	71	41	0·57
Sing'eton	b	62	51	0·40
Sydney ..	b	66	50	0·12
Ta'w'rth	b	70	43	0·62
Taralga ..	g	65	32	0·71
Taree	b	72	53	0·05
T'nt'rfield	b	70	50	0·52
Wagga ..	g	65	42	0·50
Walcha ..	g	62	37	0·58
Walgett..	b	73	48	0·41
Warrah ..	b	60	47	1·09
W'ntw'rth	b	62	40	0·04
Wilcannia	b	—	—	–
W'll'ng'ng	b	70	50	0·21
Young ..	u	75	40	0·68

Average Annual Rainfall for 27 years.....
Average for 28 years from Jan. 1st to July 31st, 23·03
Total Rainfall from January 1st to August 12th 23·10
Barometers corrected to 32° Fah. and Mean Sea Level

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky, c, detached clouds; d, dull; e, fine rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain, s, snow; t, thunder u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature. R m, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to the symbol are placed figures denoting the number of miles the wind is moving per hour. Next, a symbol showing the state of the sea; and, lastly, figures denoting the State temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown at 9 a.m. Perth; Ay, Albany; Ea, Eucla; Ck, Cape Carnot; A, Ascend; Ie, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; L, Loch; Ma, Moruya; C, Cape Otway; Sy, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; C, Cooktown. Inland the state of barometers is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine; light S. to W. winds and calm in north; N. to N.W. winds in south parts; on west coast the sea is smooth; but moderate to rough along south coast. Rainfall: At Perth, 0·06. Extremes of barometers and temperature: Geraldton, 30·03; Albany, 29·65; Carnarvon, 79°; and Esperance Bay, 42°.

South Australia.—Generally fine, with scattered clouds; between Adelaide and Carrieton cloudy and gloomy. Raining at Adelaide and Cape Borda; winds are light from S.W. to N.W.; barometers have risen, and the sea is moderating, but is still rough off Cape Borda. Light rain has fallen south of Port Augusta; greatest at Watervale, Hakendorf, and Mount Gambier, at which places 0·55, 0·40, and 0·39 inches respectively is reported to have fallen. Extremes of barometers and temperature: Port Augusta, 30·15; Robe, 29·86 and 54°; Adelaide, 52°

Victoria.—Generally cloudy, gloomy, and raining, with risen barometers, strong west winds, and rough sea; hailstorm, showery, and fierce squalls at Wilson's Promontory; squally, with hail, at Cape Schanck; snowing at Omeo. Light rain fallen generally, heaviest at Wilson's Promontory, 0·92. Extremes of barometers and temperature: Ballarat, 29·92; Wilson's Promontory, 29·71; Cape Schanck, 53°; and Hamilton, 40°.

Tasmania.—Generally fine, with fresh N.W. to S.W. winds, fallen barometers, and moderate sea; passing showers at Southport. Light rain fallen generally, heaviest at Falmouth, 0·21". Extremes of barometers and temperature: Low Head, 29·58 and 49°; Falmouth, 29·48 and 48°.

New Zealand.—Generally fine, with west winds and calm. Barometers: Russell, 30·0; Wellington and Bluff, 29·6.

Queensland.—Generally fine, with west winds in south, and calms in north parts; fallen barometers, and moderate sea. Rainfall: Cape Moreton, 0·11; Rockhampton, 0·08. Extremes of barometers and temperature: Cooktown, 30·03 and 89°; Townsville, 29·77; and Cape Moreton, 64°.

New South Wales.—Generally fine, with fresh winds from S.W. to W., fallen temperature, and smooth sea. Barometers have fallen along the coast, but risen in west parts. Cloudy on and near western slope of the range, from Mudgee and Gulgong southwards. Snowing at Kiandra; squally along the coast. Thunderstorms occurred during the night at the following places:—Grafton, Nowra, Walgett, and Murrurundi; at the last-mentioned it was accompanied by downpour of hail. During the last 24 hours light rain has fallen generally, having been heaviest along the range, where, at six scattered stations, quantities varying from three-quarters to above an inch are reported to have fallen. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·18; Gabo Island, 29·55; Lismore, 66°; and Kiandra, 29°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m., 29·769. Extra stations: Nowra, max. 69, min. 41, rainfall 0·44, strong west wind: Brewarrina, max. 64°, min. 34°, rainfall 0·20. (For further particulars see map.)

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, W.N.W., 34, squally and misty, rough sea, temperature 56°; Melbourne, W., 13, light rain, temperature 52°; Cape Schanck, W., 23, cloudy and misty, rough sea, temperature 53°; Wilson's Promontory, W., 34, squally, rough sea, temperature 52°; Lakes Entrance, W., 34, squally and cloudy, temperature 52°.

New South Wales.—Menindie, calm, fine, temperature 59°; Wentworth, W., 14, fine, temperature 57°; Deniliquin, S.W., 28, cloudy and dull, temperature 31°; Eden, S.W., 4°, fine, smooth sea, temperature 55°; Moruya, S.W., 42, fresh gale blowing, smooth sea, temperature 62°; Cape St. George, W., 42, fine, smooth sea, temperature 59°; Sydney, W.S.W., 3°, fine, but squally, smooth sea, temperature 58°; Newcastle, S.W., 28, fine, smooth sea, temperature 62°; Port Macquarie, W.S.W., 42, fine, smooth sea, temperature 47°; Clarence River, W.S.W., 28, fine, smooth sea, temperature 71°; Walgett, S.W., fine temperature 56°; Dubbo, S.W., 14, fine, temperature 60°; Goulburn, N.W., 14, fine, temperature 52°.

STATE OF RIVERS.

Barwon, 40 feet above summer level; Brewarrina, 36 feet above summer level; Good Oura, 11 feet 8 inches above summer level; Gundagai, 4 feet 2 inches above summer level; Louth, 29 feet 11 inches above summer level; Mogil Mogil, over banks; Mungindi, 25 feet above summer level; Namoi, over banks; Tilba, 36 feet 1 inch above summer level. Murrumbidgee, At Wagga, 6 feet 4 inches above summer level; at Hay, 3 feet 3 inches above summer level; at Balranald, 9 feet 8 inches above summer level. Murray: At Albury, 3 feet 9 inches above summer level; at Euston, 1 foot 11 inches above summer level; at Wentworth, 7 feet 10 inches above summer level; at Pooncarie, 20 feet 6 inches above summer level; at Menindie, 23 feet 7 inches above summer level; at Wilcannia, 31 feet 8 inches above summer level; at Bourke, 31 feet 11 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 13.

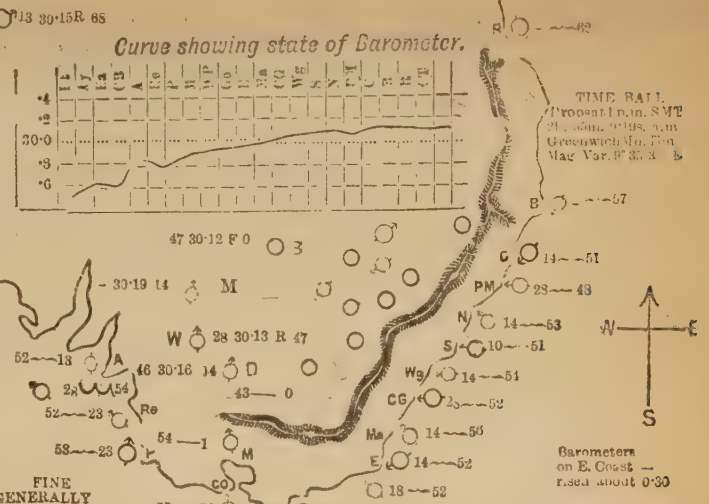
Sun rises at 6.43, sets at 5.27; Moon, 4.25 p.m., 5.10 a.m.; Mercury, 6.18 a.m., 6.8 p.m.; Venus, 5.9 a.m., 3.0 p.m.; Mars, 9.36 a.m., 10.33 p.m.; Jupiter, 8.51 a.m., 9.0 p.m.; Saturn, 1.4 a.m., 2.44 p.m.; Full Moon, 15th; New Moon, 29th.

High water at Fort Denison, August 13: 7.15 a.m., 7.36 p.m.

Bathurst	b	47 28	0
Bend'm'r	b	54 25	0
Bodalla ..	b	66 31	0
Bourke ..	b	71 39	0
Bundarra	b	63 36	0
C'md'n Fl	b	70 46	0
C. St. Geo	b	62 52	0
Carcoar ..	b	47 32	0·02
Casino ..	b	72 42	0
Cassilis ..	n	53 36	0
Clarence	b	74 47	0
C'nd'b'lin	b	57 26	0
Cooma ..	n	51 28	0
Coonab'n	b	60 26	0
Cowra ..	b	56 39	0
Deniliq'n	b	60 37	0
Dubbo ..	b	56 27	0
Eden	b	55 47	0
Euston ..	b	67 35	0
Forbes ..	b	69 48	0
Gl'n Inn's	b	50 29	0
Goulburn	b	47 31	0
Grafton ..	b	75 41	0
Es.			
Gulgong	b	54 27	0
Gunned'h	b	59 35	0
Hay	b	59 31	0
Inverell ..	n	66 30	0
Kiandra	s	37 27	0
Lismore	b	72 43	0
Maitland	b	61 42	0
Marsdens	n	60 40	0
Menindie	b	68 45	0
Molong ..	n	60 29	0
M'r'ng'r'll	b	55 33	0
Moree ..	b	66 37	0
Moruya ..	b	64 43	0
Moss Vale	b	50 34	0
Mt. Hope	–	— —	–
M. Vict'ria	n	48 31	0
Mudgee ..	b	59 25	0
M'rr'm'bh	b	52 39	0·01
M'rr'ndi	b	54 —	0
Mus'br'k	b	74 31	0
Narrabri	b	65 38	0
Newcastle	b	64 43	0
Orange ..	n	44 30	0
Picton ..	b	55 41	0
P. M'q'rie	b	65 37	0
P. St'ph'n	b	57 38	0
Q'nbeyan	b	49 36	0
Quirindi	n	60 36	0
Singleton	b	50 45	0
Sydney ..	b	59 47	0
Tam'worth	n	56 29	0
Taralga ..	n	51 32	0
Taree ..	b	66 42	0
T'nt'rfield	b	66 39	0
Wagga ..	b	55 45	0
Walcha ..	n	63 26	0
Walgett ..	b	57 39	0
Warrah ..	n	57 32	0
W'ntw'rth	b	65 41	0
Wilcannia	b	— —	–
W'll'ng'ng	b	64 50	0
Young ..	b	57 34	0·04

Average Annual Rainfall for 27 years..... 46·865
Average for 28 years from Jan. 1st to JULY 31st 35·064
Total Rainfall from January 1st to August 13th 23·240
Barometers corrected to 32° Fah. and Mean Sea Level

If it is CALM, the symbol is used without the arrow
Smooth sea.
Heavy sea
Very heavy sea.



Barometers on E. Coast — risen about 0·30

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky, c, detached clouds; d, drizzling rain; l, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; rm, the rain for the previous 24 hours. The syn bols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy, and threatening rain, with fresh westerly winds, fallen barometers, and smooth sea. Rough sea on south coast; showery at Albany and Perth. Rainfall: Geraldton, 0·24; Perth 0·34; Albany, 0·16, and Esperance Bay, 0·30. Extremes of barometers and temperature: Ashburton, 30·02; Albany, 29·51; Carnarvon, 79°; and Esperance Bay, 51°.

South Australia.—Generally fine, with fresh N.E. to N.W. winds, risen barometers, and rough sea. Squally on coast; showery at M'Donnell Bay. Rainfall: Robe, 0·04. Extremes of barometers and temperature: On coast:—Port Augusta, 29·91; Cape Borda, 29·57 M'Donnell Bay, 50°; and Eucla, 63°; in Northern Territory—Daly Waters, 30·01 and 73°; Port Darwin, 29·90 and 79°.

Victoria.—Generally fine, with fresh N. to W. winds, risen barometers and moderate sea; squally and misty on coast. Rainfall: Cape Otway and Hamilton 0·06, Cape Schanck and Portland 0·03, Horsham 0·02, Melbourne 0·01, and Wilson's Promontory 0·24. Extremes of barometers and temperature: Omeo 30·01 and 45°, Portland 29·79, and Cape Schanck 53°.

Tasmania.—Raining on north and cloudy on east coast, with fresh westerly winds, risen barometers, and moderate sea. Rainfall: Circular Heads 0·15, Southport 0·10. Extremes of barometers and temperature: Low Heads 29·80 and 52°, Southport 29·65, and Circular Heads 47°.

New Zealand.—Generally gloomy and overcast, with N. to E. winds. Barometers: Russell 29·9, Wellington 29·8, and Bluff 29·6.

New South Wales.—Generally fine and cold, with light W.N.W. winds and calms, risen barometers, and smooth sea. Heavy frost along the range as far north as Inverell; snowing at Kiandra, and light rain fallen at a few stations west of the range in south parts. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·17; Eden, 29·95; Moruya, 56°; and Kiandra, 34°. Reading of standard barometer at Sydney corrected to 32° Fah., and mean sea level, at 9 a.m., 30·111. Extra station: Brewarrina, max. 68°, min. 30°, and fine. (For further particulars see map.)

Queensland.—Generally fine, with light winds from S.E. to S.W., risen barometers, and moderate sea. No rain fallen. Extremes of barometers and temperature: Rockhampton, 30·11; Townsville, 29·78; Cooktown, 83°; and Cape Moreton, 54°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.W., 24, cloudy, smooth sea, temperature 60°; Cape Otway, N., 23, fine but cloudy, smooth sea, temperature 60°; Melbourne, N., 23, fine but squally, temperature 61°; Cape Schanck, W.N.W., 23, cloudy and misty, moderate sea, temperature 56°; Wilson's Promontory, N., 8, fine but cloudy, smooth sea, temperature 61°; Lakes Entrance, W., 23, fine but cloudy, temperature 58°.

New South Wales.—Menindie, N.W., 28, fine, temperature 60°; Wentworth, N., fine and clear, temperature 55°; Deniliquin, N., 14, fine, temperature 63°; Eden, N.E., 14, fine, smooth sea, temperature 60°; Moruya, N.E., 28, fine, smooth sea, temperature 62°; Cape St. George, N., 14, fine, smooth sea, temperature 64°; Sydney, E.N.E., 8, fine but hazy, smooth sea, temperature 60°; Newcastle, W., 14, fine, smooth sea, temperature 63°; Port Macquarie, E.N.E., 14, fine, smooth sea, temperature 64°; Dubbo, calm, fine, temperature 59°; Goulburn, calm, fine, temperature 53°.

STATE OF RIVERS.

Barwon, 40 feet 8 inches above summer level; Brewarrina, 38 feet above summer level; Goodooga, 11 feet 4 inches above summer level; Gundabai, 4 feet above summer level; Louth, 30 feet 3 inches above summer level; Mogil Mogil, over banks; Mungindi, 25 feet 6 inches above summer level; Namoi, over banks: Tilba, 35 feet 10 inches above summer level. Murrumbidgee: At Wagga, 6 feet 8 inches above summer level; at Hay, 4 feet 9 inches above summer level; at Balranald, 10 inches above summer level. Murray: At Albury, 4 feet above summer level; at Euston, 2 feet 4 inches above summer level. Darling: At Wentworth, 7 feet 11 inches above summer level; at Pooncarie, 20 feet 6 inches above summer level; at Menindie, 23 feet 3 inches above summer level; at Wilcannia, 30 feet 8 inches above summer level; at Bourke, 31 feet 6 inches above summer level.

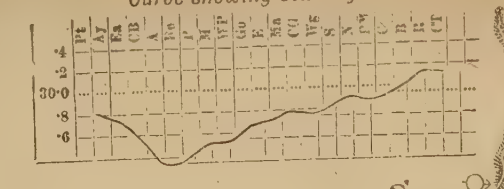
ASTRONOMICAL MEMORANDA FOR AUGUST 14.

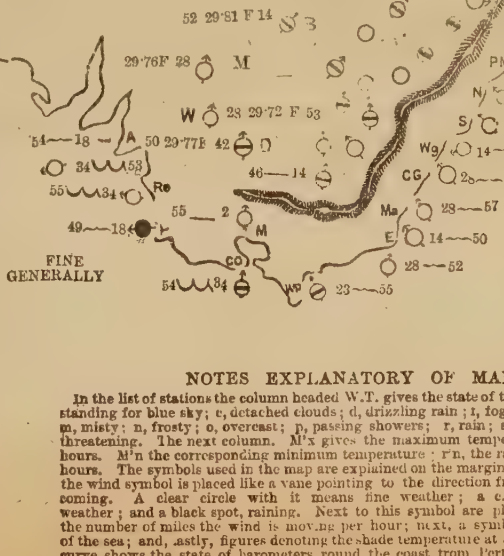
Sun rises at 6.41, sets at 5.24; Moon, 5.18 p.m., 5.51 a.m.; Mercury, 6.3 a.m., 6.1 p.m.; Venus, 5.10 a.m., 3.12 p.m.; Mars, 9.31 a.m., 10.12 p.m.; Jupiter, 8.19 a.m., 8.57 p.m., Saturn, 4.13 a.m., 2.41 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison, August 14: 7.56 a.m., 8.15 p.m.

Balranald	c	64 42	0
Bathurst	b	60 31	0
Bend'm'r	b	52 37	0
Bodalla ..	b	72 35	0
Bourke ..	c	67 45	0
Bundarra	c	66 43	0
C'md'n H	b	65 46	0
C. St. Geo	b	67 58	0
Carcoar ..	n	49 33	0
Casino ..	u	69 41	0
Cassilis ..	b	55 38	0
Clarence	c	57 52	0
C'nd'b'lin	c	60 31	0
Cooma ..	n	60 32	0
Coonab'n	g	62 36	0
Cowra ..	g	60 40	0
Deniliq'n	c	66 42	0
Dubbo ..	g	63 35	0
Eden	b	62 51	0
Euston ..	b	72 47	0
Forbes ..	g	63 49	0
Gl'n Inn's	c	66 33	0
Goulburn	b	60 28	0
Grafton ..	g	74 43	0
Es.			
Gulgong	b	55 37	0
Gunned'h	b	58 40	0
Hay	g	64 43	0
Inverell ..	h	67 30	0
Kiandra	c	39 27	0
Lismore	g	75 46	0
Maitland	c	62 40	0
Marsdens	b	62 40	0
Menindie	b	64 51	0
Molong ..	g	63 30	0
M'r'ng'r'll	b	61 36	0
Moree ..	g	70 44	0
Moruya ..	b	68 48	0
Moss Vale	n	52 37	0
Mt. Hope	–	— —	–
M. Vict'ria	c	52 35	0
Mudgee ..	b	67 30	0
M'rr'm'bh	b	66 40	0
M'rr'r'ndi	b	55 —	0
Mus'lbr'k	b	60 32	0
Narrabri	c	60 38	0
Newcastle	b	67 44	0
Orange ..	n	49 32	0
Picton ..	b	61 35	0
P. M'q'rie	c	61 40	0
P. St'ph'n	b	61 38	0
Q'nbeyan	n	54 35	0
Quirindi	b	68 39	0
Singleton	b	59 45	0
Sydney ..	b	62 47	0
Tamw'rth	–	— —	–
Taralga ..	h	67 32	0
Taree	c	67 43	0
T'nt'rfield	g	67 50	0
Wagga ..	b	62 43	0
Walcha ..	b	62 24	0
Walgett ..	c	58 45	0
Warrah ..	b	62 41	0
W'ntw'rth	b	47 46	0
Wilcannia	c	— —	0
W'll'ng'ng	g	70 49	0
Young ..	b	70 36	0

Average Annual Rainfall for 27 years..... 49·895
Average for 28 years from Jan. 1st to JULY 31st 35·084
Total Rainfall from January 1st to August 14th 23·240
Barometers corrected to 32° Fah., and Mean Sea Level





H.C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On south coast cloudy and overcast, with strong squally W. to N.W. winds, fallen barometers, and rough sea. Showery at Albany. Rainfall: Albany, 0·46; Esperance Bay, 0·75.

South Australia.—Generally cloudy, gloomy, and threatening rain south of Alice Springs; squally and showery in parts on coast, with strong N. to N.W. winds, very low barometers, and rough sea. Barometric depression south of Robe and Adelaide. Showery at Streaky and M'Donnell Bays. Light rain recorded on coast; greatest at Elliston, M'Donnell Bay, and Beadkort, at which places 0·57, 0·49, and 0·48 inches fell respectively. Extremes of barometers and temperature: On coast—Eucla, 29·79; M'Donnell Bay, 24·32 and 48°; and Robe, 55°.

Victoria.—Generally cloudy and unsettled, with fresh northerly winds, fallen barometers, and moderate sea. Rough sea off Capes Schanck and Otway, showery at Portland, and strong wind in squalls on coast. Extremes of barometers and temperature: Omeo, 29·65 and 47°, Portland 29·34, and Melbourne, 55°.

Tasmania.—Generally cloudy and threatening, with fresh N. to west winds, fallen barometers, and moderate sea. Rainfall at Low Heads, 0·08. Extremes of barometers and temperature: Southport, 29·52; Falmouth, 29·46 and 49°; and Hobart, 55°.

New Zealand.—Generally gloomy, with strong N.E to N.W. winds. Squally, with thunderstorm, at Russell; 0·45 inch rain fallen at Wellington. Barometers: Russell, 29·7; Wellington, 29·5, and Bluff, 29·6.

New South Wales.—Generally unsettled and cold, with light N. and N.W. winds, fallen barometers, and smooth sea. Fine and clear in the eastern territorial division south of the Manning River; cloudy and gloomy in the remainder of the colony. Heavy frost along the range south of Orange. The upper part of the Darling is still rising slowly. Extremes of barometers and temperature at 9 a.m.: Clarence, 29·99; Eden, 29·69; Moruya and Cape St. George, 57°; Kiandra, 33°. Reading of standard barometer at Sydney, corrected to 32° Fah., and mean sea level at 9 a.m., 29·872. (For further particulars see map.)

Queensland.—In south fine, with south to west winds; in north parts cloudy and threatening, with S.E. winds. No rain falle Extremes of barometers and temperature: Rockhampton, 30· and 60°; Townsville, 29·83; and Cooktown, 82°.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, N.W., 28, fine, temperature 64°; Wentworth, N.N.E., 20, like a storm, temperature 60°; Deniliquin, N., 28, fine, cloudy, temperature 64°; Eden, N., 14, fine, smooth sea, temperature 60°; Moruya, N.W., 28, fine, smooth sea, temperature 67°; Cape St. George, fine, smooth sea, temperature 64°; Sydney, N., 14, fine, clear, temperature 65°; Newcastle, W., 10, fine, smooth sea, temperature 65°; Port Macquarie, N.N.E., 14, fine, smooth sea, temperature 64°; Clarence River, N., 10, smooth sea; Walgett, N.W., raining, temperature 66°; Dubbo, W.N.W., 14, cloudy, temperature 59°; Goulburn, calm, fine, temperature 54°; Brewarrina, S.E., 28, cloudy.

STATE OF RIVERS.

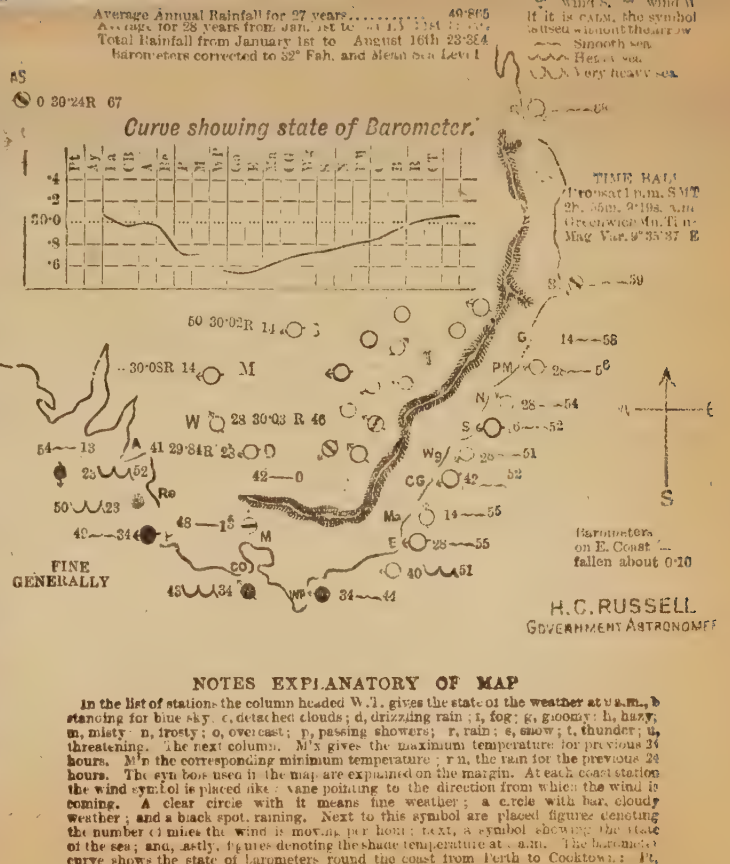
Barwon, 41 feet above summer level; Brewarrina, 39 feet above summer level; Goodooga, 11 feet above summer level; Gundagai, 4 feet 8 inches above summer level; Louth, 30 feet 6 inches above summer level; Mogil Mogil, over banks; Mungindi, 26 feet 6 inches above summer level; Namoi, over banks; Tilpa, 35 feet 7 inches above summer level. Murrumbidgee: At Wagga, 6 feet 4 inches above summer level; at Hay, 5 feet 6 inches above summer level; at Balranald, 11 inches above summer level. Murray: At Albury, 4 feet above summer level; at Euston, 2 feet 4 inches above summer level. Darling: At Wentworth, 7 feet 11 inches above summer level; at Pooncarie, 20 feet 7 inches above summer level; at Menindie, 23 feet 8 inches above summer level; at Wilcannia, 31 feet 9 inches above summer level; at Bourke, 32 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 16.

The Sun rises at 6.39, sets at 5.29: Moon, 7.4 p.m., 7.5 a.m.; Mercury, 6.28 a.m., 5.41 p.m.; Venus, 5.11 a.m., 3.16 p.m.; Mars, 9.30 a.m., 10.30 p.m.; Jupiter, 8.42 a.m., 8.51 p.m.; Saturn, 4.36 a.m., 2.34 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison, August 16: 9.9 a.m., 9.26 p.m.

Balranald	b	63 32	0
Bathurst	b	68 42	0
Bend'm'r	g	69 42	0·27
Bodalla ..	b	73 44	0
Bourke ..	b	66 43	0
Bundarra	b	64 44	0·27
C'md'n H	b	72 47	0
C. St. Geo	b	69 63	0·13
Carcoar ..	u	49 41	1·10
Casino ..	b	75 48	0
Cassilis ..	b	55 44	0·06
Clarence	b	72 52	0
C'nd'b'lin	b	65 31	0·60
Cooma ..	n	55 32	0·18
Coonab'n	b	60 35	0·52
Cowra ..	b	58 40	0·75
Deniliq'n	b	69 31	0·40
Dubbo ..	b	59 35	0·64
Eden	b	64 47	0
Euston ..	b	56 35	0
Forbes ..	b	— 34	0·56
Gl'n Inn's	b	63 37	0
Goulburn	b	52 35	0·79
Grafton ..	b	80 56	0
Ea.			
Gul'gong	b	66 23	0·79
Gunned'h	b	65 39	0·24
Hay	b	69 36	0·28
Inverell ..	b	66 30	0
Kiandra ..	s	44 26	0
Lismore ..	b	76 51	0
Maitland	b	66 45	0·10
Marsdens	n	63 41	0·70
Menindie	b	65 47	0
Molong ..	b	59 33	1·15
M'r'ng'r'll	c	60 38	0·58
Moree ..	b	67 41	0·21
Moruya ..	b	66 45	0
Moss Vale	b	50 38	0·80
Mt. Hope	b	68 44	0·10
M. Vict'ria	b	57 32	0·58
Mudgee ..	b	64 36	0·86
M'rr'm'bh	b	64 43	0·99
M'rr'r'ndi	b	59 —	0·62
Mus'br'k	b	68 42	0·22
Narrabri	b	63 38	0·23
Newcastle	b	64 47	0·06
Orange ..	b	47 33	1·53
Picton ..	b	59 46	0·28
P. M'q'rie	b	73 48	0
P. St'ph'n	b	62 46	0
Q'nbeyan	b	55 37	0·20
Quirindi	b	63 46	0·37
Singleton	b	65 50	0
Sydney ..	h	61 50	0·14
Tam'w'rth	g	62 44	0
Taralga ..	b	57 29	1·01
Taree	b	72 52	0
T'nt'rfield	b	63 26	1·00
Wagga ..	c	66 38	0·80
Walcha ..	b	58 33	0·39
Walgett ..	b	61 43	0
Warrah ..	b	60 40	0·45
W'htw'rth	b	60 40	0·11
Wilcannia	b	— —	0
W'll'ng'ng	b	70 50	0
Young ..	n	60 47	0·76



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.I. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: P, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay light rain from east, risen barometer, and moderate sea. Rainfall, 0·07; barometer, 29·94; and temperature, 50°.

South Australia.—Generally cloudy and unsettled south of Alice Springs, showery in places, and squally on coast and in S.E. parts. Winds generally blow fresh from N.W. to S.W., barometers have risen, and the sea is rough. Rain recorded south of Quorn; over an inch reported in neighbourhood of Kapunda and in S.E. parts; from 1·00 to 2·19 inches has fallen over Mount Lofty Ranges. Extremes of barometers and temperature: On coast—Port Augusta, 30·10; M'Donnell Bar, 29·73 and 50.; and Eucla, 54°. In Northern Territory—Daly Waters, 30·03 and 80; Port Darwin, 29·91 and 84°.

Victoria.—Generally raining, with very strong squally W. to N. winds, risen barometers, and moderate sea. Rough sea off Capes Schanck and Otway; fierce squalls on coast; squally with hail at Cape Otway; heavy rain at Hamilton. Moderate rain has fallen generally, having been heaviest at Portland and lightest at Melbourne, at which places 0·94 and 0·09 inches fell respectively. Extremes of barometers and temperature:—Hamilton, 29·85 and 40°; Wilson's Promontory, 29·57 and Cape Schanck, 52°.

Tasmania.—Generally fine, with fresh N. to W. winds, risen barometers, and moderate sea. Light rain has fallen generally, but heaviest in north parts. Extremes of barometers and temperature:—Low Heads, 29·52; Southport, 29·44; Falmouth, 48°; and Circular Heads, 44°.

New Zealand.—Generally fine, with E. to N.E. winds; gloomy at Russell. Barometers: Russell, 29·8; Wellington and Bluff, 29·7.

New South Wales.—Generally fine and cold, with fresh westerly winds and smooth sea. Barometers fallen slightly on coast; risen in west parts. Sea rough off Gabo Island. Showery at Albury. One foot snow at Kiandra and still snowing; snowstorm during the night at Mt. Victoria. Light rain fallen during the last 48 hours west of the range generally and in coast districts around Sydney. In the districts between Mudgee and Wagga, 14 stations report from three-quarters to 1¼ inches fallen. Extra stations: Nowra, max. 70°, min. 45°, rainfall on Sunday morning, 0·17 inch; Brewarrina, max. 64°, min. 33°, rainfall 0·16; Camden, rainfall 0·40, and fine weather; Temora, heavy thunderstorm from S.W., rainfall 0·80. For further particulars see map.

Queensland.—In south, parts cloudy, with S.W. winds and moderate sea; in north, fine, with S.E. winds and smooth sea. Rainfall: Brisbane and Rockhampton, 0·02. Extremes of barometers and temperature: Cooktown, 30·04 and 85°; Townsville, 29·63, and 59° at Brisbane and Cape Moreton.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 40, passing showers and squally, smooth sea, temperature 53°; Cape Otway, W.S.W., 40, passing showers and squally, rough sea, 49°; Melbourne, W.N.W., 13, cloudy and gloomy, temperature 53°; Cape Schanck, W., 23, fine but cloudy, rough sea, temperature 55°; Wilson's Promontory, W.N.W., 34, showery and squally, moderate sea, temperature 47°; Lake Entrance, W.N.W., 28, cloudy and squally, temperature 54°.

New South Wales.—Menindie, W., 14, fine, temperature 58°; Wentworth, W., 28, fine, temperature 53°; Deniliquin, W., 11, fine temperature 51°; Eden, W.S.W., 42, fine, smooth sea, temperature 61°; Moruya, W., 42, fine, smooth sea, temperature 60°; Cape St. George, W.S.W., 42, fine, smooth sea, temperature 56°; Sydney, W., 34, fine and squally, smooth sea, temperature 58°; Newcastle, W., 28, fine, smooth sea, temperature 63°; Port Macquarie, W., 42, fine, smooth sea, temperature 66°; Clarence River, W., 28, fine, smooth sea, temperature 61°; Dubbo, W.S.W., 14, fine, temperature 58°; Goulburn N.W., 28, fine and cold.

STATE OF RIVERS.

Barwon, 40 feet 9 inches above summer level; Brewarrina, 42 feet above summer level; Goodooroa, 11 feet 4 inches above summer level; Gundagai, 6 feet above summer level; Louth, 31 feet 2 inches above summer level; Mogil Mogil, over banks; Mungindi, 27 feet above summer level; Namoi, overbanks; Tilpa, 35 feet 8 inches above summer level. Murrumbidgee: At Wagga, 5 feet 10 inches above summer level; at Hay, feet above summer level; at Balranald, 3 feet above summer level. Murray: At Albury, 3 feet 10 inches above summer level; at Euston, 3 feet above summer level. Darling: At Wentworth, 9 feet above summer level; at Pooncarie, 20 feet 8 in hes above summer level; at Menindie, 24 feet 9 inches above summer level; at Wilcannia, 32 feet above summer level; at Bourke, 30 feet above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 17.

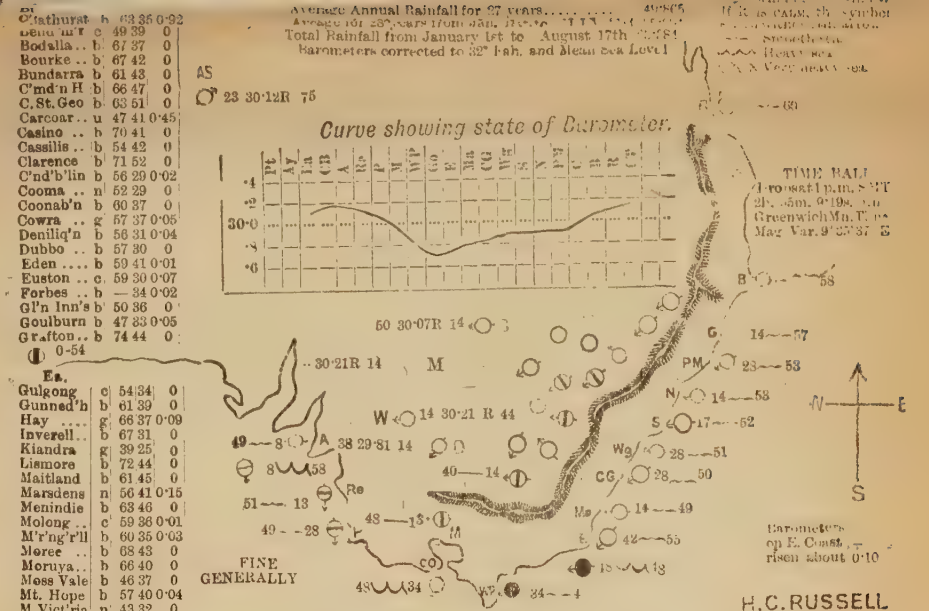
Sun rises at 6.38, sets at 5.30; Moon, 7.58 p.m., 7.40 a.m.; Mercury, 6.21 a.m., 5.31 p.m.; Venus, 5.12 a.m., 3.18 p.m.; Mars, 9.28 a.m., 10.29 p.m.; Jupiter, 8.38 a.m., 8.48 p.m.; Saturn, 4.37 a.m., 2.30 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison, August 17: 9.42 a.m., 9.58 p.m.

C'thathurst	b	63 35	0·92
Bdlo m'Y	c	49 39	0
Bodalla ..	b	67 37	0
Bourke ..	b	67 42	0
Bundarra	b	61 43	0
C'md'n H	b	66 47	0
C. St. Geo	b	63 51	0
Carcoar ..	u	47 41	0·45
Casino ..	b	70 41	0
Cassilis ..	b	54 42	0
Clarence	b	71 52	0
C'nd'b'lin	b	56 29	0·02
Cooma ..	n	52 29	0
Coonab'n	b	60 37	0
Cowra ..	g	57 37	0·05
Deniliq'n	b	56 31	0·04
Dubbo ..	b	57 30	0
Eden	b	59 41	0·01
Euston ..	c	59 30	0·07
Forbes ..	b	— 34	0·02
Gl'n Inn's	b	50 36	0
Goulburn	b	47 33	0·05
Grafton ..	b	74 44	0

Ea.			
Gulgong	c	54 34	0
Gunned'h	b	61 39	0
Hay	g	66 37	0·09
Inverell ..	b	67 31	0
Kiandra	g	39 25	0
Lismore	b	72 44	0
Maitland	b	61 45	0
Marsdens	n	56 41	0·15
Menindie	b	63 46	0
Molong ..	c	59 36	0·01
M'r'ng'r'll	b	60 35	0·03
Moree ..	b	68 43	0
Moruya ..	b	66 40	0
Moss Vale	b	46 37	0
Mt. Hope	b	57 40	0·04
M. Vict'ria	n	43 32	0
Mudgee ..	c	61 32	0·03

M'rr'm'bh	b	53 37	0·25
M'rr'r'ndi	b	53 44	0
Mus'br'k	b	64 38	0
Narrabri	b	61 37	0
Newcastle	b	65 45	0
Orange ..	c	45 33	0·28
Picton ..	b	56 46	0
P. M'q'rie	b	66 46	0
P. St'ph'n	b	61 41	0
Q'nbeyan	b	48 37	0
Quirindi	b	58 44	0
Singleton	b	52 49	0
SYDNEY ..	h	59 46	0
Tamw'rth	b	56 39	0
Taralga ..	g	60 31	0
Taree	b	66 48	0
T'nt'rfield	b	76 38	0
Wagga ..	b	56 34	0·05
Walcha ..	b	48 33	0
Walgett ..	b	61 45	0
Warrah ..	b	62 45	0
W'ntw'rth	b	62 40	0
Wilcannia	b	— —	0
W'll'ng'ng	b	64 47	0
Young ..	c	63 36	0·13



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and gloomy, with light variable winds, low barometers, and moderate sea; squally from south, and very rough sea at Albany. Rainfall: Perth 0·39, and Geraldton 1·75. Extremes of barometers and temperature: Ashburton, 29·89; Esperance Bay, 29·67 and 45°; Carnarvon, 74°.

South Australia.—Generally cloudy and gloomy south of Peake; threatening west of Cape Borda, with light variable winds and calms; showery at M'Donnell Bay; sea moderate. Light rain fallen at a few places and on the coast. Extremes of barometers and temperature: Eucla, 29·91; Adelaide, 30·13; Cape Borda, 58°; and M'Donnell Bay, 79°.

Victoria.—Generally gloomy and raining, with fresh west to south winds, risen barometers, and moderate sea. Rough sea off Wilson's Promontory and Cape Schanck. Squally on coast. Light rain fallen generally. Extremes of barometers and temperature: Horsham, 30·08 and 44°; Wilson's Promontory, 29·07; and 40° at Omeo and Hamilton.

Tasmania.—Generally fine, with fresh N.W. to S.W. winds, and moderate sea. Heavy showers. Rainfall 0·45, and rough sea at Southport; snowing on mountains round Hobart during night. Extremes of barometers and temperature: Circular Heads, 29·79 and 43°; Falmouth, 29·56 and 47°.

New Zealand.—Generally unsettled, with variable winds and calm. Barometers generally 29·6. Passing showers at Russell; foggy at Wellington; and cloudy at Bluff.

New South Wales.—Generally fine and cold, with fresh W. to S.W. winds, rising barometers, and smooth sea. Cloudy in S.W. parts. Snow falling at Kiandra and Mount Victoria. Light rain fallen west of Orange in south parts; heaviest in the districts due west of Sydney. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·22; Eden, 29·75; Clarence, 57°; Mount Victoria, 34°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m., 29·890. Extra stations: Nowra, max. 58°, min. 42°, fine; Hill End, rainfall, 0·15. For further particulars see map.

Queensland.—Generally fine, with light E. to S.E. winds and moderate sea. No rain fallen. Extremes of barometers and temperature: Cape Moreton, 30·13 and 56°; Townsville, 29·83 and 77°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 23, passing showers, smooth sea, temperature 52°; Cape Otway, W.S.W., 34, cloudy, moderate sea, temperature 49°; Melbourne, S.W., 18, cloudy, temperature 52°; Cape Schanck, S.W., 23, fine and misty, moderate sea, temperature 53°; Wilson's Promontory, W., 23, cloudy and squally, rough sea, temperature 47°; Lake Entrance, W., 34, showery and squally, temperature 52°.

New South Wales.—Menindie, calm, dull and cloudy, temperature 58°; Wentworth, S.W., fine, temperature 54°; Deniliquin, S.S.W., dull, temperature 55°; Eden, W.S.W., 42, fine, smooth sea, temperature 55°; Moruya, S.S.W., 42, fine, smooth sea, temperature 61°; Cape St. George, W.S.W., 28, fine, smooth sea, temperature 59°; Sydney, W.S.W., 25, fine, smooth sea, temperature 57°; Newcastle, S.W., 14, fine, smooth sea, temperature 63°; Port Macquarie, S.W. 42, fine, smooth sea, temperature 66°; Clarence River, W., 14, fine, smooth sea, temperature 67°; Dubbo, W.S.W., 14, fine, temperature 57°; Goulburn, W., fine, temperature 50°.

STATE OF RIVERS.

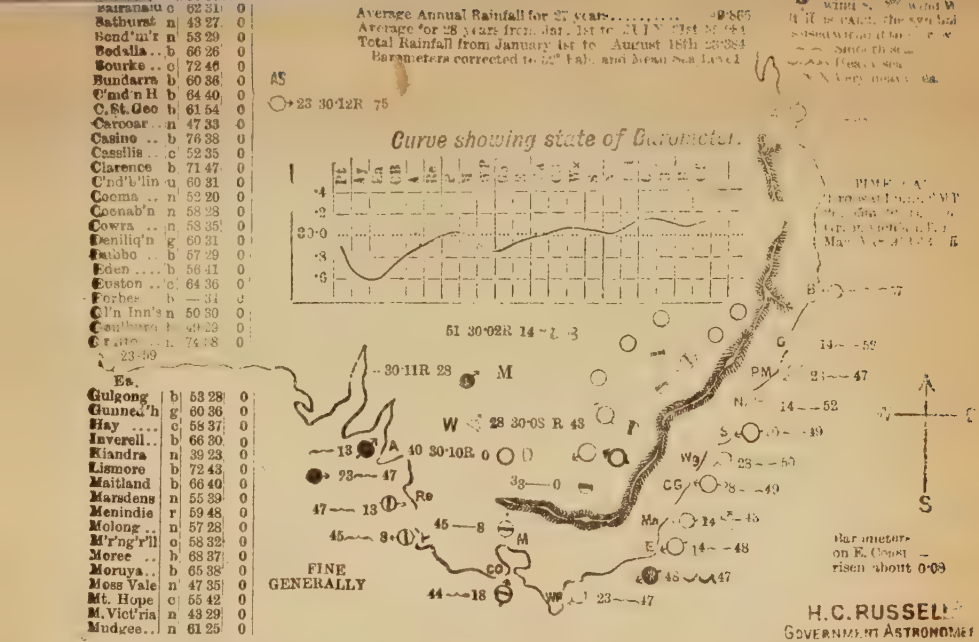
Barwon, 40 feet 6 inches above summer level; Brewarrina, 43 feet above summer level; Goodooga, 11 feet 7 inches above summer level; Gundagai, 7 feet 6 inches above summer level; Louth, 31 feet 6 inches above summer level; Mogil Mogil, over banks; Mungindi, 26 feet 6 inches above summer level; Namoi, over banks; Tilpa, 35 feet 9 inches above summer level. Murrumbidgee: At Wagga, 7 feet 9 inches above summer level; at Hay, 5 feet 11 inches above summer level; at Balranald, 4 feet 3 inches above summer level. Murray: At Albury, 3 feet 11 inches above summer level; at Euston, 3 feet 9 inches above summer level. Darling: At Wentworth, 8 feet 1 inch above summer level; at Pooncarie, 20 feet 9 inches above summer level; at Menindie, 23 feet 9 inches above summer level; at Wilcannia, 32 feet 2 inches above summer level; at Bourke, 34 feet 11 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 18.

Sun rises at 6.37, sets at 5.31; Moon, 8.50 p.m., 8.12 a.m.; Mercury, 6.13 a.m., 5.22 p.m.; Venus, 5.12 a.m., 3.19 p.m.; Mars, 9.26 a.m., 10.28 p.m.; Jupiter, 3.35 a.m., 8.45 p.m.; Saturn, 4.29 a.m., 2.27 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison, August 18: 10.14 a.m., 10.30 p.m.

Bairnsdale	c	62 31	0
Bathurst	n	43 27	0
Bend'n'r	n	53 29	0
Bodalla	b	66 26	0
Bourke	c	72 46	0
Bundarra	b	60 36	0
C'md'n H	b	64 40	0
C. St. Geo	b	61 54	0
Carcoar	n	47 33	0
Casino	b	76 38	0
Cassilis	c	52 35	0
Clarence	b	71 47	0
C'nd'b'lin	c	60 31	0
Cooma	n	52 20	0
Coonab'n	n	58 28	0
Cowra	n	58 35	0
Deniliq'n	g	60 31	0
Dubbo	b	67 29	0
Eden	b	56 41	0
Euston	c	64 36	0
Forbes	b	— 31	c
G'l'n Inn's	n	50 30	0
Goulburn	b	49 29	0
Grafton	b	74 38	0
Gulgong	b	53 28	0
Gunnedah	g	60 36	0
Hay	c	58 37	0
Inverell	b	66 30	0
Kiandra	n	39 23	0
Lismore	b	72 43	0
Maitland	b	66 40	0
Marsdens	n	55 39	0
Menindie	r	59 48	0
Molong	n	57 28	0
M'r'ng'r'll	o	58 32	0
Moree	b	68 37	0
Moruya	b	65 38	0
Moss Vale	n	47 35	0
Mt. Hope	c	55 42	0
M. Vict'ria	n	43 29	0
Mudgee	n	61 25	0
M'rr'm'bh'	c	64 42	0
M'rr'r'ndi	n	53 37	0
Mus'lbr'k	b	60 31	0
Narrabri	c	60 39	0
Newcastle	b	65 41	0
Orange	n	44 29	0
Picton	b	56 40	0
P. M'q'rie	b	64 34	0
P. St'ph'n	b	61 37	0
Q'nbeyan	n	49 33	0
Quirindi	o	61 36	0
Singleton	b	59 50	0
Sydney	h	58 45	0
Tamw'rth	b	55 28	0
Taralga	b	52 30	0
Taree	b	66 39	0
T'nt'rfield	b	55 32	0
Wagga	b	57 31	0
Walcha	n	49 24	0
Walgett	c	59 43	0
Warrah	n	62 32	0
W'ntw'rth	o	61 43	0
Wilcannia	r	— —	0
W'll'ng'ng	b	62 45	0
Young	n	61 28	0



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In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., **b** standing for blue sky; **c**, detached clouds; **d**, drizzling rain; **f**, fog; **g**, gloomy; **h**, hazy; **m**, misty; **n**, frosty; **o**, overcast; **p**, passing showers; **r**, rain; **s**, snow; **t**, thunder; **u**, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature. Rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each constellation the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Eu, Eucla; CB, Cape Borda; A, Adelaide; Rc, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. In and the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and threatening rain, with light S.E. to S.W. winds, fallen barometers, and smooth sea; squally, with rough sea at Albany; passing showers at Carnarvon. Extremes of barometers and temperature: Albany, 30·04; Carnarvon, 29·91; Ashburton, 71°; and Perth, 49°.

South Australia.—In south parts overcast and passing showers of light rain, with fresh N. to N.E. winds, fallen barometers, and moderate sea. In Northern Territory fine and calm. Rain recorded south of Quorn; between Port Augusta and Adelaide from 30 to 70 points fell during the last 24 hours. Extremes of barometers and temperature: On coast—Adelaide, 29·84; Cape Borda, 47°; Eucla, 29·56 and 59°. In Northern Territory—Daly Waters, 29·97 and 81°; Port Darwin, 29·83 and 83°.

Victoria.—Generally unsettled, with light variable winds, steady barometers, and moderate sea. Heavy frost inland; squally at Wilson's Promontory; and a few points rain fallen in south parts. Extremes of barometer and temperature: Ballarat, 30·06; Hamilton, 29·96 and 35°; and Cape Schanck, 52°

Tasmania.—In north parts fine, in south cloudy and passing showers, with fresh N. to W. winds, risen barometers, and moderate sea. Rough sea off Southport. Extremes of barometers and temperature: Low Heads, 29·87 and 46°; Hobart, 29·75 and 45°.

New Zealand.—Generally fine, with light N.E. to N.W. winds and calm. Showery on west coast. Barometers: Russell, 29·5; Wellington, 29·4; and Bluff, 29·6.

New South Wales.—In coast districts, fine and clear; along the range as far north as Glen Innes, heavy frost; west of the range, generally cloudy and gloomy, and on the Darling showery weather and light rain coming in from South Australia. Strong wind in squalls, rough sea, and passing showers reported from Gabo Island. Generally winds are light from N.W. to S.W., with calms in places, fallen temperature, slightly risen barometers, and smooth sea. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·11; Eden, 29·90; Clarence, 52°, and Cooma 29°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level, 30·019., Brewarrina, max. 64°, min. 32°, and cloudy. For further particulars see map.

Queensland.—Generally fine, with light SE. to S.W. winds, risen barometers and moderate sea. Rainfall: 0·03 inch fallen at Cooktown. Extremes of barometers and temperature: Brisbane, 30·11; Townsville, 30·3; Cape Moreton, 54°, and Cooktown, 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.E., 18, cloudy, smooth sea, temperature 50°; Cape Otway, S.W., 18, gloomy, smooth sea, temperature 49°; Melbourne, S.S.W., 8, overcast, temperature 50°; Cape Schanck, S., 8, cloudy and misty, smooth sea, temperature 53°; Wilson's Promontory, S.W., 23, overcast and squally, moderate sea, temperature 50°; Lakes Entrance, W., 23, fine but cloudy, temperature 54°.

New South Wales.—Menindie, N.E., 14, overcast and raining, temperature 58°; Wentworth, N., 14, raining lightly, temperature 47°; Deniliquin, calm, cloudy, temperature 40°; Eden, S.W., 14, fine, smooth sea, temperature 56°; Moruya, E., 28, fine, smooth sea, temperature 56°; Cape St. George, S., 14, fine, smooth sea, temperature 57°; Sydney, N., 6, fine and hazy, smooth sea, temperature 56°; Newcastle, S.W., 14, fine, smooth sea, temperature 50°; Port Macquarie, S.E. 14, fine, smooth sea, temperature 62°; Clarence River, E., 14, fine, moderate sea, temperature 63°; Dubbo, calm, fine and hazy, temperature 56°; Goulburn, N.W., 14, fine, temperature 51°.

STATE OF RIVERS.

Barwon, 40 feet 3 inches above summer level; Brewarrina, 43 feet 6 inches above summer level; Goodooga, 11 feet 8 inches above summer level; Gundagai, 7 feet above summer level; Louth, 31 feet 11 inches above summer level; Mogil Mogil, over banks; Mungindi, 26 feet 4 inches above summer level; Namoi, over banks; Tilpa, 35 feet 9 inches above summer level. Murrumbidgee: At Wagga, 9 feet 9 inches above summer level; at Hay, 4 feet 11 inches above summer level; at Balranald, 4 feet 8 inches above summer level. Murray: At Albury, 4 feet 2 inches above summer level; at Euston, 4 feet 3 inches above summer level. Darling: At Wentworth, 8 feet 3 inches above summer level; at Pooncarie, 20 feet 9 inches above summer level; at Menindie, 23 feet 10 inches above summer level; at Wilcannia, 32 feet 3 inches above summer level; at Bourke, 35 feet 5 inches above summer level.

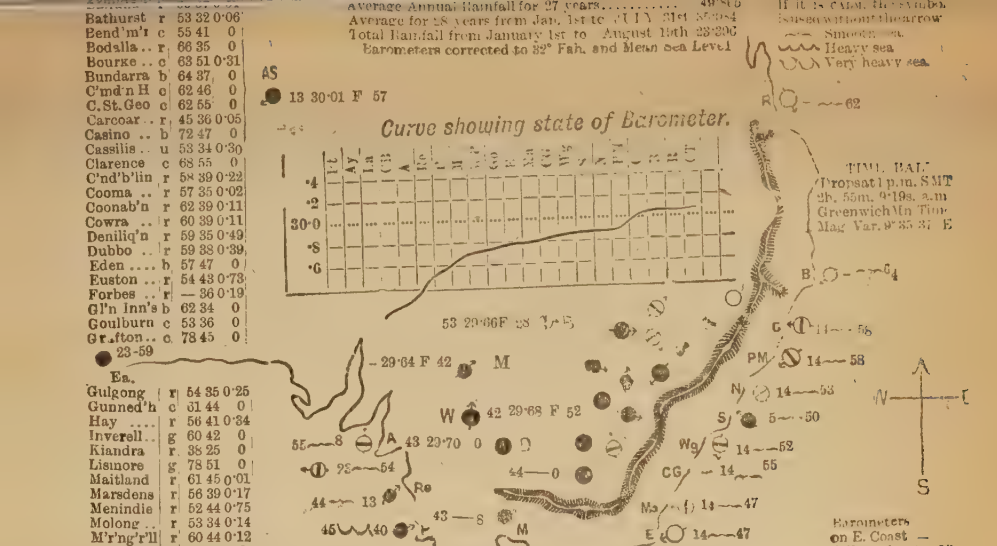
ASTRONOMICAL MEMORANDA FOR AUGUST 19.

Sun rises at 6.36, sets at 5.31; Moon, 9.43 p.m., 8.45 a.m.; Mercury, 6.6 a.m., 5.12 p.m.; Venus, 5.18 a.m., 3.21 p.m.; Mars, 9.24 a.m., 10.27 p.m.; Jupiter, 8.31 a.m., 8.42 p.m.; Saturn, 4.25 a.m., 2.23 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison, August 19: 10.46 a.m., 11.3 p.m.

Bathurst	r	53	32	0·06
Bend'm'r	c	55	41	0
Bodalla ..	r	66	35	0
Bourke ..	c	63	51	0·31
Bundarra	b	64	37	0
C'md'n H	c	62	46	0
C.St.Geo	c	62	55	0
Carcoar ..	r	45	36	0·05
Casino ..	b	72	47	0
Cassilis ..	u	53	34	0·30
Clarence	c	68	55	0
C'nd'b'lin	r	58	39	0·22
Cooma ..	r	57	35	0·02
Coonab'n	r	62	39	0·11
Cowra ..	r	60	39	0·11
Deniliq'n	r	59	35	0·49
Dubbo ..	r	59	38	0·39
Eden	b	57	47	0
Euston ..	r	54	43	0·73
Forbes ..	r	—	36	0·19
Gl'n Inn's	b	62	34	0
Goulburn	c	53	36	0
Gr..fton ..	c	78	45	0
Gulgong	r	54	35	0·25
Gunned'h	c	51	44	0
Hay	r	56	41	0·34
Inverell ..	g	60	42	0
Kiandra	r	38	25	0
Lismore	g	78	51	0
Maitland	r	61	45	0·01
Marsdens	r	56	39	0·17
Menindie	r	52	44	0·75
Molong ..	r	53	34	0·14
M'r'ng'r'll	r	60	44	0·12
Moree ..	c	67	45	0
Moruya ..	c	63	45	0
Moss Vale	r	50	39	0·03
Mt. Hope	r	56	40	0·17
M.Vict'ria	c	48	33	0
Mudgee ..	r	62	26	0·15
M'rr'm'bh	r	61	37	0·10
M'rr'ndi	o	53	42	0·09
Mus'br'k	r	63	40	0·08
Narrabri	o	63	41	0
Newcastle	c	66	51	0
Orange ..	r	42	32	0·25
Picton ..	r	58	42	0·01
P. M'q'rie	c	60	47	0
P. St'ph'n	g	61	44	0
Q'nbeyan	o	45	33	0
Quirindi	g	59	31	0·06
Singleton	g	60	51	0·20
SYDNEY ..	r	58	49	0·01
Tam'w'rth	g	68	40	0
Taralga ..	r	53	34	0
Taree	g	63	44	0·04
T'nt'rfield	b	61	42	0
Wagga ..	r	59	37	0·23
Walcha ..	o	52	31	0
Walgett ..	r	61	47	0·08
Warrah ..	c	65	40	0·03
W'ntw'rth	r	53	47	0·53
Wilcannia	r	—	—	0
W'll'ng'ng	g	64	48	0
Young ..	r	74	36	0·13

Average Annual Rainfall for 27 years..... 49·86
Average for 28 years from Jan. 1st to JULY 31st 25·04
Total Rainfall from January 1st to August 15th 23·20
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt. Eerth; Ay, Albany; La, Lucia; CE, Cape Borda; L, Eden; Ma, Moruya; C G Jervis M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; P M, Port Macquarie; C, Clarence Bay; Wg, Wollongong; S, Sydney; N, Newcastle; R, Rockhampton; Ct, Cooktown. In and the state of barometer River E, Brisbane; is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Generally cloudy and gloomy, with light rain in places, light N.E. to N.W. winds, fallen barometers, and moderate sea. Rain recorded over the whole colony. The heaviest falls are:—Alice Springs, 2·00; Truro, 1·95; Quorn, 1·82; Peake, 1·19; Port Augusta, 1·15; Robe, 1·06; Adelaide, 1·00. In Northern Territory, cloudy, gloomy, and calm. Rainfall: Tennant's Creek, 0·75; Daly Waters, 0·76; and Port Darwin, 0·01. Extremes of barometers and temperature: On coast —Port Augusta, 29·47; Cape Borda, 29·33 and 54°; Robe, 44°. In Northern Territory —Daly Waters, 30·03 and 68°; Port Darwin, 29·84 and 77°.

Victoria.—Raining steadily throughout, with light easterly winds, fallen barometers, and smooth sea. Dense fog and mist along the coast; rough sea off Portland, squally at Wilson's Promontory, and heavy rain in S.W. parts. Rain fallen generally; heaviest at Horsham and Portland, with 0·81 and 0·59 inches respectively. Extremes of barometers and temperature: Cape Schank, 29·78; Horsham, 29·53 and 51°; Ballarat, 37°.

Tasmania.—Generally cloudy and gloomy, with light variable winds, fallen barometers, and moderate sea. Rough sea off Southport; no rain fallen. Extremes of barometers and temperature: Low Heads, 29·77 and 48°; Southport, 20·68 and 46°.

New Zealand.—Heavy floods in N.E. parts of South Island; generally fine; on North Island, calm; at Bluff, fresh N.E. wind. Barometers: Russell and Wellington, 29·5; and Bluff, 29·6.

New South Wales.—In extreme north and north-east parts cloudy and gloomy, in the remainder of the colony raining more or less heavily, with light N. to E. winds, fallen barometers, and smooth sea. Light rain fallen generally; heaviest on the Darling and Murray rivers between Menindie and Balranald, where falls of from ½ to ¾ of an inch have been recorded. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·01; Forbes, 29·61; Port Macquarie, 58°; and Kiandra, 29°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level, at 9 a.m., 29·880. Extra stations—Brewarrina, max. 64°, min. 34°, rainfall 0·23; Hill End, rainfall 0·15. For further particulars see map.

Queensland.—Generally fine, with light S.E. to S.W. winds, and smooth sea. No rain fallen. Extremes of barometers and temperature: Rockhampton, 30·03; Townsville, 29·73; Cape Moreton, 62°; and Cooktown, 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E., 48, heavy rain, rough sea, temperature 47°; Cape Otway, E.S.E., 40, light rain and foggy, smooth sea, temperature 45°; Melbourne, E.S.E., 8, light rain, temperature 49°; Cape Schanck, E., 13, light rain, smooth sea, temperature 51°; Wilson's Promontory, E., 34, light rain, moderate sea, temperature 45°; Lakes Entrance, N.E., 8, light rain, temperature 50°.

New South Wales.—Menindie, N.W., raining, temperature 60°; Wentworth, N., raining, temperature 53°; Deniliquin, calm raining, temperature 52°; Eden, N.E., 14, raining, smooth sea, temperature 50°; Moruya, W., 14, light rain, smooth sea, temperature 50°; Cape St. George, N., 28, overcast and dull, smooth sea, temperature 51°; Sydney, N.N.E., 6, overcast and dull, smooth sea, temperature 51°; Newcastle, N.W., 14, raining, smooth sea, temperature 50°; Port Macquarie, S.S.E. 11, cloudy, smooth sea, temperature 60°; Clarence River, N.E., 10, cloudy, smooth sea, temperature 68°; Walgett, W.N.W., cloudy, temperature 66°; Dubbo, N.E., showery, temperature 57°; Forbes, calm, showery; Goulburn, N.E., 14, showery, temperature 51°.

STATE OF RIVERS.

Barwon, 40 feet above summer level; Brewarrina, 43 feet 9 inches above summer level; Goodooga, 11 feet 8 inches above summer level; Gundagai, 6 feet 4 inches above summer level; Louth, 32 feet 3 inches above summer level; Mogil Mogil, over banks; Mungindi, 26 feet 3 inches above summer level; Namoi, over banks; Tilba, 35 feet 11 inches above summer level; at Murrumbidgee: At Wagga, 9 feet 6 inches above summer level; at Hay, 4 feet 11 inches above summer level; at Balranald, 7 feet 8 inches above summer level. Murray: At Albury, feet 3 inches above summer level; at Euston, 4 feet 11 inches above summer level. Darling: At Wentworth, 8 feet 10 inches above summer level; at Pooncarie, 20 feet 9 inches above summer level; at Menindie, 23 feet 10 inches above summer level; at Wilcannia, 32 feet 4 inches above summer level; at Bourke, 35 feet 5 inches above summer level.

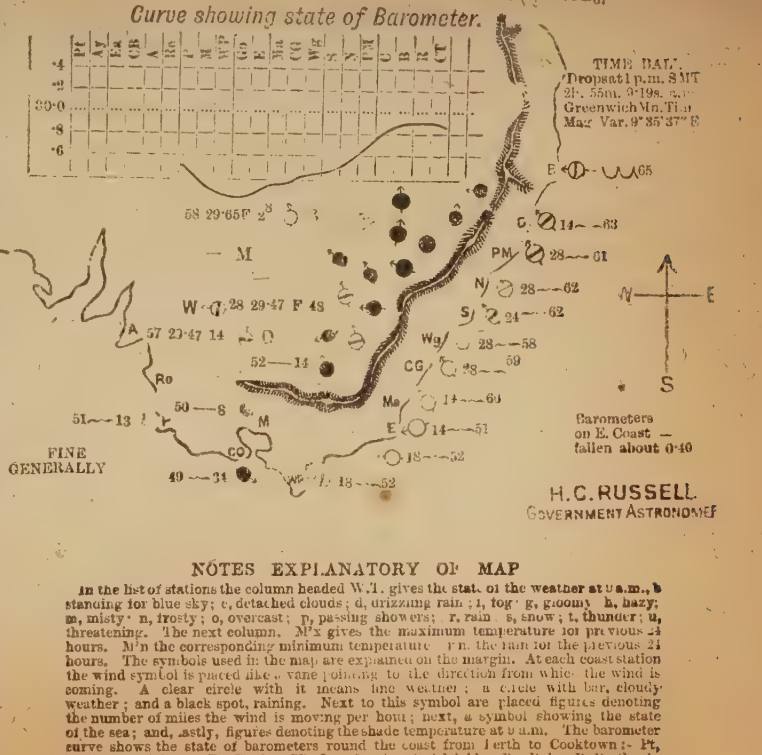
ASTRONOMICAL MEMORANDA FOR AUGUST 20.

Sun rises at 6.35, sets at 5.32; Moon, 10.39 p.m., 9.17 a.m.; Mercury, 5.56 a.m., 5.2 p.m.; Venus, 5.13 a.m., 3.23 p.m.; Mars, 9.22 a.m., 10.26 p.m.; Jupiter, 8.28 a.m., 8.39 p.m.; Saturn, 4.22 a.m., 2.20 p.m. Full Moon, 15th; New Moon, 29th.
High water at Fort Denison, August 20: 11.19 a.m., 11.38 p.m.

Bathurst	c	52 41	0·89
Bend'm'r	r	58 46	0·88
Bodalla ...	b	57 40	0·20
Bourke ...	b	65 51	0·08
Bundarra	r	66 43	1·10
C'mdn'n H	c	63 54	0
C. St. Geo	b	60 52	0·43
Carcoar ...	r	50 44	1·37
Casino ...	u	75 54	0·25
Cassilis ...	r	52 46	0·71
Clarence	c	70 60	0
C'nd'b'lin	r	56 36	0·60
Cooma ...	b	47 39	0·05
Coonab'n	r	59 45	2·14
Cowra ...	c	59 40	1·24
Deniliq'n	c	55 41	0·68
Dubbo ...	r	58 45	0·86
Eden	b	52 51	0·16
Euston ...	b	57 39	0
Forbes ...	c	— 40	1·02
Gl'n Inn's	r	68 38	0·90
Goulburn	r	57 39	0·66
Grafton ...	c	80 51	0
Ga.			
Gulgong	r	54 38	0·84
Gunned'h	r	59 51	0·61
Hay	b	57 46	0·24
Inverell ..	r	67 41	1·25
Kiandra	r	42 32	3·63
Lismore	g	81 50	0
Maitland	g	61 50	0·41
Marsdens	c	57 40	0·39
Menindie		— —	—
Molong ...	r	54 42	1·12
M'r'ng'r'll	c	58 44	0·62
Moree ...	r	76 52	0·66
Moruya ..	b	63 47	0·23
Moss Vale	b	51 42	0·36
Mt. Hope	c	59 48	0·30
M. Vict'ria	c	52 42	0·50
Mudgee ...	c	51 39	1·11
M'rr'm'bbl	o	56 48	0·76
M'rr'n'ndi	r	60 49	1·02
Mus'br'k	c	55 45	0·60
Narrabri	r	78 43	0·53
Newcastle	c	63 51	0·35
Orange ...	r	50 38	1·57
Picton ...	g	50 45	0·53
P. M'q'rie	c	63 52	0
P. St'ph'n	g	62 48	0·29
Q'nbeyan	b	50 43	0·43
Quirindi	r	58 46	0·61
Singleton	g	60 51	0·58
SYDNEY ...	c	62 51	0·36
Tamw'rth	r	58 46	0·70
Taralga ...	g	62 52	0·08
Taree	r	47 39	1·08
T'nt'rfield	r	61 52	0·14
Wagga ...	r	53 43	0·86
Walcha ...	r	60 40	0·49
Walgett...	o	68 52	0·45
Warrah ...	c	60 40	0·87
W'ntw'rth	g	61 45	0·33
Wilcannia	b	— —	—
W'll'ng'ng	b	64 50	0·50
Young ...	r	54 42	0·91

Average Annual Rainfall for 27 years..... 49·86
Average for 28 years from Jan. 1st to JULY 31st 35·084
Total Rainfall from January 1st to August 20th 23·752
Barometers corrected to 32° Fah. and Mean Sea Level

If it is CALM, the symbol is used without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.



H.C. RUSSELL.
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. The corresponding minimum temperature in the last column for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Generally cloudy south of Alice Springs; light rain in places between Point Pirie and Farina; northerly winds we st of Cape Borda; 0·02 to 0·04 rain recorded south of peak; at Wilson 0·87 rain, and at Orroroo, 0·81.

Victoria.—Generally cloudy and unsettled, with light N.E. to N.W. winds, fallen barometers, and moderate sea. Squally, with rough sea, at Wilson's Promontory; foggy at Cape Otway, and at Melbourne. Rather heavy rain has fallen generally: Cape Otway 1·40, Cape Schanck 1·12, Echuca 1·32, Ballarat 1·20, Melbourne 0.91, Wilson's Promontory 0·60, Horsham 0·45, and Omeo 0.09 inches. Extremes of barometers and temperature: Ballarat 29·43, Wilson's Promontory 29·27, Horsham 54°, and Hamilton 45°.

Tasmania.—Light rain in north parts, cloudy and threatening in south, with light S. to E. winds, fallen barometers, and moderate sea. Rough sea off Southport. Rainfall: Low Heads, 0·54; Falmouth, 0·41; and Hobart, 0·07. Extremes of barometers and temperature: Southport, 29·49, and 50°. Low Heads, 29·37 and 44°.

New Zealand.—Rough sea on east coast. Misty rain from south at Wellington. In extreme north and south fine, with variable winds. Barometers: Russell, 29·7; Wellington and Bluff, 29·6.

New South Wales.—In S.E. and extreme west parts fine and clear; in the remainder of the colony gene ally raining, with light N. to W. winds, fallen barometers, risen temperature, and smooth sea. At Sydney the maximum temperature for the 24 hours occurred at 9 a.m. to-day, the minimum at 9 a.m. yesterday, and both here and at Newcastle the tem erature rose 10° at midnight. Rain has fallen throughout the colony during the last 24 hours, having been heaviest along the western slope of the range; 25 stations report from ½ to 1½ inch fallen, while Coonabarabran had 2·14, and Kiandra 3·63 inches. Barometers are very low generally, and still falling. Extremes of barometers and temperature at 9 a.m.: Clarence, 29·82; Eden, 29·27; Lismore, 65°; and Kiandra, 39°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level: At 9 a.m., 29·459; at 3 p.m. it had fallen to 29·407. (For further particulars see map.)

Queensland.—Generally cloudy and gloomy. In south parts W. to N.W. winds; in north S. to S.E. winds. Sea rough off Cape Moreton; raining at Cooktown. Extremes of barometers and temperature: Rockhampton, 29·92; Cape Moreton, 65°; Townsville, 29·68; and Cooktown, 78°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.S.W., 18, misty rain, smooth sea, temperature 52°; Cape Otway, S.E., 28, passing showers, smooth sea, temperature 53°; Melbourne, N.N.E., 8, showery, temperature 54°; Cape Schanck, N.W., 8, cloudy and misty, smooth sea, temperature 54°; Wilson's Promontory, S.S.W., 23, misty rain and squally, rough sea, temperature 50°; Lakes Entrance, W., 23, passing showers, temperature 57°.

New South Wales.—Menindie, W., 30, stormy, temperature 68°; Went vorth, W., 30, steady rain falling, temperature 52°; Deniliquin calm, overcast, te perature 62°; Eden, E.N.E., 14, fine, smooth sea, temperature 58°; Moruya N.W., 42, fine, smooth sea, temp. 67°; Cape St. George, W., 42, fine, smooth sea, temp. 68°; Sydney, N.W., 25, fine, smooth sea, temperature 67°; Newcastle, N.W., 14, fine, smooth sea, temperature 65°; Port Macquarie, N. 42 overcast and dull, smooth sea, temperature 66°; Clarence River, N., dull smooth sea, temperature 65°; Walgett, N.W. showery, temperature 63°; Dubbo, N.N.W., 14, fine, temperature 64°; Goulburn, N.W., 14, showery, temperature 56°.

STATE OF RIVERS.

Barwon, 40 feet 4 inches above summer level; Brewarrina, 43 feet 9 inches above summer level; Goodooga, 11 feet 6 inches above summer level; Gundagai, 6 feet above summer level; Louth, 32 feet 8 inches above summer level; Mogil Mogil, over banks; Mungandi, 26 feet 2 inches above summer level; Namoi, over banks. Murrumbidgee: At Wagga, 8 feet above summer level; at Hay, 4 feet 11 inches above summer level; at Balranald, 7 feet 10 inches above summer level. Murray: At Albury, 4 feet 2 inches above summer level; at Euston, 5 feet 3 inches above summer level. Darling: At Wentworth, 8 feet 9 inches above summer level, at Pooncarie, 20 feet 9 inches above summer level; at Wilcannia, 32 feet 5 inches above summer level; at Bourke, 36 feet above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 21.

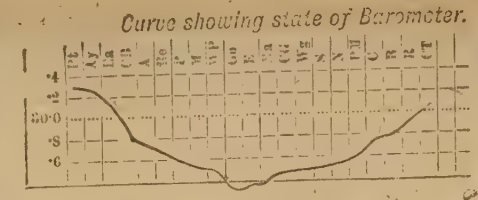
Sun rises at 6.04, sets at 5.33; Moon, 11.35 p.m., 9.51 a.m.; Mercury, 5.51 a.m., 4.53 p.m.; Venus, 5.14 a.m., 3.24 p.m.; Mars, 9.19 a.m., 10.25 p.m.; Jupiter, 8.24 a.m., 8.36 p.m.; Saturn, 4.18 a.m., 2.16 p.m. Full Moon, 15th; New Moon, 29th.
High water at Fort Denison, August 21: 11.56 a.m.

* This is rather uncertain, since there is no properly fixed gauge to indicate the great flood at Brewarrina.

Bathurst	r	58	42	0·20
Bend'm'r	r	60	43	0·82
Bodalla ..	b	76	36	0
Bourke ..	c	69	51	0·03
Bundarra	b	55	47	0·73
C'md'n H	b	65	52	0
C. St. Geo	b	72	65	0
Carcoar ..	r	52	44	0·40
Casino ..	b	67	52	0·22
Cassilis .	r	60	49	0·21
Clarence	b	70	55	0·09
C'nd'b'lin	g	61	31	0·11
Cooma ..	n	59	31	0·02
Coonab'n	r	59	45	0·65
Cowra ..	r	61	44	0·27
Deniliq'n	g	61	43	0·13
Dubbo ..	r	64	45	0·05
Eden ..	g	60	48	0·02
Euston ..	g	53	41	0
Forbes ..	g	—	47	0·36
Gl'n Inn'e	r	45	41	1·05
Goulburn	g	56	38	0·24
Grafton ..	b	53	—	0·11
Gulgong	r	59	40	0·27
Gunned'h	r	58	48	0·74
Hay ..	g	61	45	0·24
Inverell ..	c	67	42	0·75
Kiandra	f	40	31	1·29
Lismore	b	67	59	0·18
Maitland	b	61	52	0·02
Marsdens	c	60	50	0·04
Menindie	c	59	49	0·10
Molong	r	61	41	0·31
M'r'ng'r'll	c	59	49	0·20
Moree ..	g	69	44	0·38
Moruya ..	g	71	50	0·03
Moss Vale	b	56	45	0
Mt. Hope	g	62	48	0
M. Vict'ria	o	54	38	0·15
Mudgee ..	r	63	38	0·11
M'rr'm'bh'	r	61	56	0·23
M'rr'r'ndi	g	60	48	1·24
Murr'bir'k	b	66	45	0·07
Narrabri	c	61	43	0·51
Newcastle	b	64	52	0
Orange ..	r	53	39	0·81
Picton ..	b	65	42	0
P. M'q'rie	b	68	51	0
P. St'ph'n	b	67	47	0
Q'nbeyan	r,	56	44	0·30
Quirindi	r	53	41	0·61
Singleton	b,	53	—	0·12
Sydney ..	b	67	53	0
Tamw'rth	r	55	47	0·98
Taralga ..	r	52	40	0·25
Taree ..	b	67	44	0
T'nt'rfield	g	52	45	1·05
Wagga ..	r	61	42	0·24
Walcha ..	u	48	34	0·70
Walgett ..	o	64	51	0·64
Warrah ..	c	60	50	0·96
W'ntw'rth	r	55	44	0·33
Wilcannia	c	—	—	—
W'll'ng'ng	b	69	47	0
Young ..	r	62	44	0·39

Average annual rainfall for 27 years.....
Average for 28 years from Jan. 1st to ...
Total Rainfall from January 1st to August 23rd, 32·52
Barometers corrected to 32° Fah. and Mean Sea Level

If it is CALM, the symbol is used without the arrow
~ Smooth sea.
~~ Heavy sea
~~~ Very heavy sea.



TIME BALL.
1 ro seat p.m. SMT
21h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9°35'37" E

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, for detached clouds; d, drizzling rain; f, foggy; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature. The rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; T M, Port Macquarie; C, Clarence River E, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Esperance Bay fine, with light N.W. wind, barometer 29·27, temperance 44°, rainfall 0·01; Perth, fine, with N.W. wind, barometer 29·29, temperature 45, sea smooth.

South Australia.—Generally cloudy and gloomy, with fresh S. to S.W. winds, risen barometers, and smooth sea; raining and showery south of Hergott, and rain recorded during last 24 hours—greatest at Blinman, Quorn, and Wilmington, at which places respectively 1·13, 0·74, and 0·91 inches fell; on the coast at Cape Borda and at Port Lincoln 0·56 and 0·59 inches respectively. Extremes of barometers and temperature: M'Donnell Bay 29·57 and 49°, Eucla 30·19 and 56°.

Victoria.—Generally raining, with light S.E. to S.W. winds, risen barometers, and moderate sea. Passing showers and misty along the coast. Foggy at Omeo. Rain all: Ballarat 0·59, Cape Schanck and Wilson's Promontory 0·42 Portland 0·38, and several other stations lesser quantities. Extremes of barometers and temperature: Ballarat 29·62 and 45°, Cape Schanck 29·36, and Horsham 54°.

Tasmania.—In north parts cloudy; in south heavy showers. Winds fresh from S.E. to S.W.; sea rough off Falmouth and Southport. Rainfall: Falmouth 0·53, Hobart 0·52, Scottsdale 0·30, and Low Heads 0·15. Extremes of barometers and temperature: Southport 29·57, Falmouth 29·44 and 49°, and Hobart 46°.

New Zealand.—Generally showery and gloomy. On North Island fresh N.W. winds; at Bluff E. wind. Barometers: Russell 29·8, Wellington 29·5, and Bluff 29·3.

New South Wales.—In coast districts, fine; in extreme west, cloudy and gloomy; along the western slope of the range, raining steadily. Winds generally are light from N. to W., barometers have risen, temperature fallen, and the sea is moderately smooth. Light rain has fallen generally during the last 24 hours, principally west of the range, and heaviest in north parts, where nine scattered stations report from ¾ to 1¼ inch fallen. Extremes of barometers and temperature at 9 a.m.: Clarence, 29·76 and 50°; Eden, 29·39; Kiandra, 36°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level, 29·55. Extra station: Hill End, rainfall 0·54, and raining steadily. (For further particulars see map.)

Queensland.—Generally cloudy and gloomy, with westerly winds and moderate sea. Rough sea off Cape Moreton. Rainfall: Brisbane, 0·90; Cape Moreton, 0·74; and Townsville, 0·01. Extremes of barometers and temperature: Cooktown, 30·07 and 78°; Townsville, 29·72; and Brisbane, 58°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S., 30, cloudy, smooth sea, temperature 54°; Cape Otway, S., 24, cloudy, smooth sea, temperature 54°; Wilson's Promontory, S.S.W., 24, squally, moderate sea, temperature 51°.

New South Wales.—Menindie, W., 14, fine, temperature 59°; Wentworth, S.S.W., cloudy, temperature 53°; Deniliquin, S.W., 14, cloudy, temperature 63°; Eden, S.W., 14, cloudy, little sea, temperature 61°; Moruya, calm, cloudy smooth sea, temperature 54°; Cape St. George, W., 20, fine, smooth sea, temperature 62°; Sydney, W.S.W., 20, fine, smooth sea, temperature 63°; Newcastle, N.W., fine, smooth sea, temperature 65°; Port Macquarie, W.S.W., 40, fine, smooth sea, temperature 69°; Clarence River, N.W., fine, smooth sea, temperature 67°; Walgett, N.W., showery, temperature 58°; Dubbo, S.W., 14, raining, temperature 52°; Goulburn, N.W., 10, fine, temperature 54°; Brewarrina, N.W., 28, cloudy, river rising.

STATE OF RIVERS.

Barwon, 40 feet 6 inches above summer level; Brewarrina, 13 feet above summer level; Goodooga, 11 feet 11 inches above summer level; Gundagai, 11 feet above summer level; Louth, 32 feet 1 inch above summer level; Mogil Mogil, over banks; Wangindi, 26 feet 2 inches above summer level; Namoi, over banks; Tilpa, over banks. Murrumbidgee: At Wagga, 9 feet 6 inches above summer level; at Hay, 4 feet 11 inches above summer level; at Balranald, 7 feet 11 inches above summer level. Murray: At Albury, 4 feet 11 inches above summer level; at Euston, 7 feet 11 inches above summer level. Darling: At Wentworth, 8 feet 11 inches above summer level; at Pooncarie, 20 feet 10 inches above summer level; at Wilcannia, 32 feet 6 inches above summer level; at Menindie, 27 feet over summer level; at Bourke, 35 feet 5 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 23.

Sun rises at 6.31, sets at 5.34; Moon, 12.33 a.m., 11.9 a.m.; Mercury, 5.45 a.m., 4.43 p.m.; Venus, 5.14 a.m., 3.48 p.m.; Mars, 9.15 a.m., 10.23 p.m.; Jupiter, 8.17 a.m., 8.30 p.m.; Saturn, 4.11 a.m., 2.9 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison, August 23: 1.1 a.m., 1.25 p.m.
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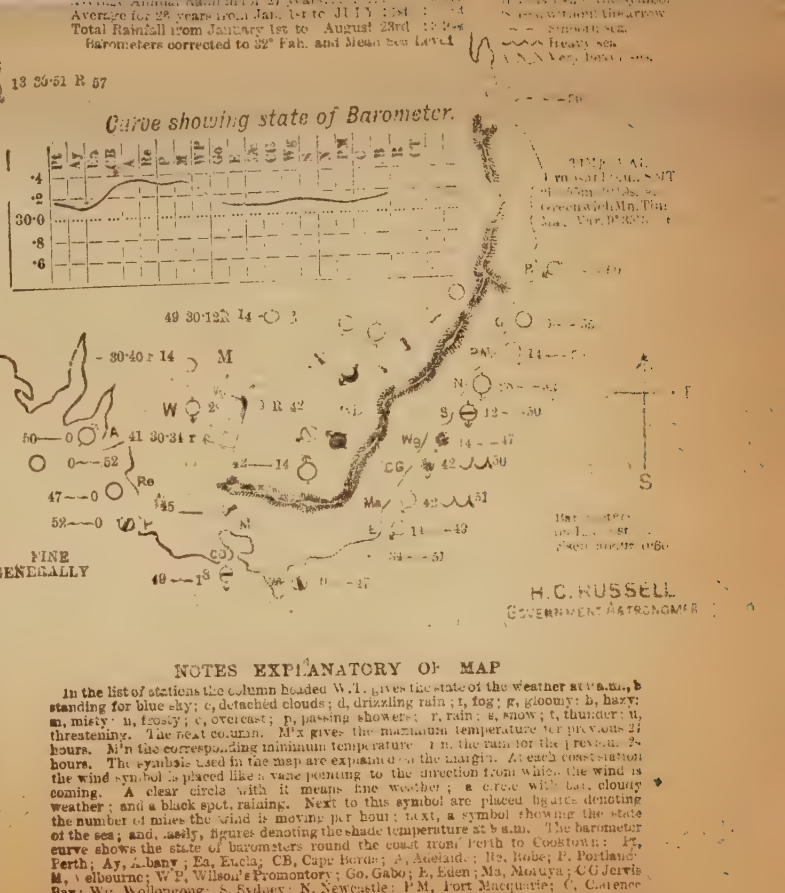
Bathurst ..	c	52 39	0·27
Bend'm'r	cl	47 31	1·04
Bedalla ..	b	69 41	0·19
Bourke ..	b	65 43	0
Bundarra	c	55 41	0·25
C'md'n H		— —	—
C. St. Geo	r	69 52	0·70
Carcoar	g	52 43	0·85
Casino ..	b	71 40	0
Cassilis ..	c	55 45	0·15
Clarence	b	71 51	0
C'nd'b'lin	b	59 31	0·15
Cooma ..	c	49 35	0·20
Coonab'n	h	58 36	0·67
Cowra ..	r	60 42	0·41
Deniliq'n	b	68 31	0·13
Dubbo ..	b	58 39	0
Eden	b	53 44	0·18
Euston ..	b	65 34	0·04
Forbes ..	c	— 45	0·28
Gl'n Inn's	c	47 32	0·43
Goulburn	g	56 37	0·31
Grafton ..	b	72 46	0
Gulgong	b	55 37	0·42
Gunned'h	b	60 40	0·21
Hay	b	59 27	0·13
Inverell ..	c	68 37	0·44
Kiandra	n	45 27	1·08
Lismore	b	71 48	0
Maitland	b	66 46	0
Marsdens	c	59 49	0·09
Menindie	b	58 26	0
Molong ..	r	75 41	0·78
M'r'ng'r'll	c	60 44	0·14
Moree ..	b	63 40	0·20
Moruya ..	b	58 27	0·38
Moss Vale	g	50 46	0·37
Mt. Hope	c	56 40	0·60
M. Vict'ria	g	48 34	0·22
Mudgee ..	g	63 35	0·51
M'r'm'bh	g	58 43	0·10
M'r'r'ndi	o	55 45	0·57
Mus'br'k	c	65 40	0·11
Narrabri	b	61 43	0·24
Newcastle	b	68 47	0·10
Orange ..	r	47 34	1·30
Picton ..	u	61 45	0·36
P. M'q'rie	b	71 49	0·27
P. St'ph'n	c	56 40	0·28
Q'nbeyan	c	54 46	0·47
Quirindi	o	60 43	0·38
Singleton	b	54 51	0
Sydney ..	g	62 47	0·19
Tamw'rth	c	47 43	0·23
Taralga ..	c	63 31	0·20
Taree	b	71 45	0
T'nt'rfield	b	53 49	0·35
Wagga ..	b	58 41	0·35
Walcha ..	u	48 34	0·68
Walgett ..	b	60 45	0·08
Warrah ..	b	60 40	0·30
W'ntw'rth	b	60 49	0·06
Wilcannia	b	— —	—
W'll'ng'ng	r	63 48	0·21
Young ..	u	68 36	0·38

Average for 28 years from Jan. 1st to JULY 31st : —
Total Rainfall from January 1st to August 23rd
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x, gives the maximum temperature for previous 24 hours. Min. the corresponding minimum temperature; R. m. the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each observation the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: At, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and other Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards, north of the winds preceding them, and southerly following.

Western Australia.—In north parts, fine, with S. to E. winds; in south, cloudy and gloomy, with variable winds and calms. Rainfall: Perth, 0·86; Esperance Bay, 0·09, and still raining. Extremes of barometers and temperature: Geraldton, 30·36; Esperance Bay, 30·05 and 48°; Carnarvon, 71°.

South Australia.—Generally fine, cold, and frosty, with very light N.E. winds and calms, risen barometers, and smooth sea. Light rain recorded south of Beltana; greatest at Wirrabara, 0·82 inch; Narridi, Victor Harbour, each 0·66; and over Mount Lofty Ranges from 0·50 to 0·63 inches. Extremes of barometers and temperature: Adelaide, 30·36; Eucla, 30·10 and 56°, and M'Donnell Bay, 48°. In Northern Territory, Daly Waters, 30·26 and 63°; Port Darwin, 30·07 and 72°.

Victoria.—Cloudy and calm on coast; fine with light S.E. winds inland; showery at Lakes Entrance; foggy at Melbourne; frosty at Ballarat. Cape Otway reports on 22nd: "Sea keeping so smooth with these strong breezes from seaward seems remarkable." Light rain fallen generally; heaviest at Omeo, 1·05. Extremes of barometers and temperature: Horsham, 30.35; Wilson's Promontory, 30·23; Portland, 52°; and Hamilton, 40°.

Tasmania.—In north fine, with light south winds; in south cloudy and gloomy, with variable winds; sea moderate, and a few points rain fallen in south. Extremes of barometers and temperatures: Low Heads, 30·28; along East coast, 30·25; Southport, 47°; and Hobart, 38°.

New Zealand.—Rough on West coast; showery at Wellington, with S.E. wind; fine and calm in extreme north and south. Barometers: Russell, 29·8; Wellington 29·6; and Bluff 29·7.

Queensland.—Generally fine, with S.W. to W. winds and moderate sea. Rough sea off Cooktown; no rain fallen. Extremes of barometers and temperature: Cooktown, 30·23 and 80°; Townsville, 29·97; and Cape Moreton, 54°.

New South Wales.—In western territorial division fine and clear, in coast and mountain districts generally cloudy, gloomy and cold, with light showers at a few stations on both sides of the range, W. and S. of Sydney. Generally barometers have risen; Winds are light from S. to W., and calms in places; and the sea is moderate, but rising south of Sydney. Light rain has fallen generally during the last 48 hours, principally along the range, and heaviest in the districts around Orange, and at a few other scattered stations, where falls ranging from ¼ to to over 1¼ inches have been recorded. Extremes of barometers and temperature at 9 a.m.: Wentworth and Menindie, 30·40; Forbes, 30·08; Lismore, 54°; and Kiandra, 30°. Reading of standard barometer at 9 a.m., corrected to 32° Fahr., and mean sea level at Sydney, 30·134. Extra station: Brewarrina, max. 65°, min. 32°; rainfall, 0·27; Nowra, max. 64°, min. 45°; rainfall, 0·05, and cloudy. For further particulars see map.)

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.N.E., 18, fine, smooth sea, temperature 57°; Cape Otway, W.S.W., 8, cloudy, smooth sea, temperature 55°; Melbourne, S.W., 13, fine, temperature 54°; Cape Schanck, W., 8, fine, but cloudy, smooth sea, temperature 55°; Wilson's Promontory, W., 8, fine but cloudy, smooth sea, temperature 56°.

New South Wales.—Menindie, calm, fine, temperature 57°; Wentworth, S., fine, temperature 52°; Deniliquin, calm, fine, temperature 61°; Eden, S.W., 14, showery, smooth sea, temperature 56°; Moruya S., 42, squally, rough sea, temperature 54°; Cape St. George, S., 42, cloudy, heavy sea, temperature 55°; Sydney, S., 20, overcast and threatening, moderate sea, temperature 53°; Newcastle, S.S.W., 25, cloudy, sea rising, temperature 57°; Port Macquarie, S.S.W., 42, fine, smooth sea, temperature 66°; Clarence River, S.W., 14, fine, smooth sea, temperature 68°; Walgett, S.W., cloudy, temperature 57°; Dubbo, S.W., fine but cloudy, temperature 57°; Forbes, calm, fine, but cloudy.

STATE OF RIVERS.

Barwon, 40 feet 8 inches above summer level; Brewarrina, 32 feet 6 inches above summer level; Goodooga, 15 feet 6 inches above summer level; Gundagai, 15 feet 10 inches above summer level; Louth, 33 feet 11 inches above summer level; Mogil Mogil, over banks; Mungindi, 26 feet above summer level; Namoi, over banks. Murrumbidgee: At Wagga, 17 feet above summer level; at Hay, 5 feet 6 inches above summer level; at Balranald, 9 feet 3 inches above summer level. Murray: At Albury, 8 feet above summer level; at Euston, 6 feet 11 inches above summer level. Darling: At Wentworth, feet 7 inches above summer level; at Pooncarie, 21 feet above summer level; at Menindie, 24 feet above summer level; at Wilcannia, 32 feet 6 inches above summer level; at Bourke, 36 feet 7 inches above summer level.

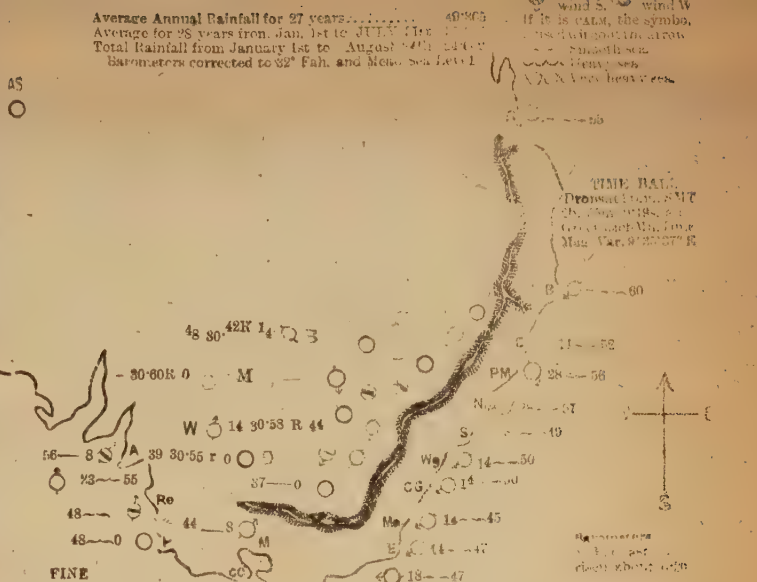
ASTRONOMICAL MEMORANDA FOR AUGUST 24.

Sun rises at 6.30, sets at 5.35; Moon, 1.32 a.m., 11.45 a.m.; Mercury, 5.43 a.m., 4.38 p.m.; Venus, 5.14 a.m., 3. 0 p.m.; Mars, 9.13 a.m., 10.22 p.m.; Jupiter, 8.14 a.m., 8. 7 p.m.; Saturn, 4.8 a.m., 2.6 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison, August 24: 1.5 a.m., 2.40 p.m.

Ea'ranald	b	75	28	0
Fathurst	f	51	32	0·05
Bend'm'r	b	52	31	0·14
Bodalla ..	b	64	30	0·02
Bourke ..	b	66	40	0
Bundarra	b	56	39	0
C'md'n H	b	69	47	0
C.St.Geo	b	57	52	0·15
Carcoar ..	n	50	34	0
Casino ..	b	72	37	0
Cass'lis ..	n	55	38	0·13
Clarence	b	70	48	0
C'nd'b'lin	b	56	26	0·07
Cooma ..	n	52	24	0·02
Coonab'n	n	56	29	0
Cowra ..	b	56	38	0·06
Den'liq'n	n	64	29	0
Dubbo ..	b	56	30	0·06
Eden	b	56	40	0·40
Euston ..	n	71	29	0
Forbes ..	b	—	32	0
Gl'n Inn's	b	45	33	0·07
Goulburn	b	53	27	0
Grafton ..	b	74	44	0
Gulgong	f	56	27	0
Gunned'h	b	70	39	0
Hay	b	61	49	0
Inverell ..	b	68	35	0
Kiandra	n	37	15	0
Lismore	b	71	44	0
Maitland	b	65	45	0
Marsdens	n	56	40	0
Menindie	b	59	43	0
Molong ..	n	52	31	0·23
M'r'ng'r'll	b	60	44	0·03
Moree ..	b	63	37	0
Moruya ..	b	59	38	0
Moss Vale	n	48	34	0
Mt. Hope	b	56	45	0
M. Vict'ria	n	48	31	0
Mudgee ..	f	60	29	0·03
M'rr'm'bh	n	64	34	0·08
M'rr'ndi	c	51	42	0·52
Mus'br'k	f	64	37	0·08
Narrabri	n	60	38	0
Newcastle	b	62	48	0·30
Orange ..	n	47	29	0·35
Picton ..	b	56	36	0
P. M'q'rie	b	64	48	0
P. St'ph'n	r	60	41	0·85
Q'nbeyan	n	51	24	0
Quirindi	b	60	46	0
Singleton	b	54	46	0·08
SYDNEY	q	55	44	0·10
Tamw'rth	b	54	26	0·03
Taralga ..	b	53	28	0
Taree	b	66	50	0·01
T'm'rfield	b	52	44	0
Wagga ..	f	61	44	0
Walcha ..	n	46	28	0·02
Walgett ..	b	59	40	0
Warrah ..	b	57	40	0·10
W'ntw'rth	b	62	37	0
Wilcannia	b	—	—	—
W'll'ng'ar	b	68	46	0·03

Average Annual Rainfall for 27 years.....
Average for 28 years from Jan. 1st to JULY 31st .....
Total Rainfall from January 1st to August 24th .....
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., **b** standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x, gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Weste n Australia.—In north parts fine, with S. E. winds; in south cloudy, with S. to W. winds, and calm. Sea generally moderately smooth, but rough at Esperance Bay. Rainfall: Esperance Bay, 0·20; Albany, 0·16, and still raining. Extremes of barometers and temperature: Perth, 30·41 and 43°; Albany, 29·94; and Ashburton, 72°. Showery at Perth; sea moderate.

South Australia.—Fine inland and in Northern Territory; scattered clouds on and near the coast, with light northerly winds, risen barometers, and moderate sea. Rainfall: Eucla, 0·04; cold and gloomy in S. W. parts. Extremes of barometers and temperature: The coast—M'Donnell Bay, 30·44 and 45°; Eucla, 30·17 and 57°. In Northern Territory, Daly Waters, 30·93 and 68°; Port Darwin, 30·02 and 75°.

Victoria.—Generally fine and cold, with light variable winds and calms, risen barometers, and moderate sea. Severe frost inland; misty at Cape Otway, and a few points of rain fallen in N.E. parts. Extremes of barometers and temperature: Melbourne, 30·54; Horsham, 52°; Omeo, 37°; and Wilson's Promontory, 30·41.

Tasmania.—Generally fine, with scattered clouds, light variable winds, and smooth sea. Foggy at Low Heads; no rain fallen. Extremes of barometers and temperature: Low Heads, 30·43 and 40°; Falmouth 30·36; and Southport, 49°.

New Zealand.—On West coast, rough sea. Fine in extreme north; showery at Wellington; passing showers and strong N.W. wind at Bluff. Barometers: Russell, 29·8; Wellington, 29·6; and Bluff, 29·5.

New South Wales.—Generally fine and cold, with light S. to W. winds, high and rising barometers, and moderate sea: severe frost and dense fog along the range; light rain fallen in Eastern division, principally in south near the range, but heaviest at Port Stephens, where 0·85 inch had fallen up to 9 a.m., when it was still raining, with a strong S.S.W. wind, and heavy sea. The Darling is stationary but he Murray and Murrumbidgee are rising. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·60; Forbes, 30·33; Newcastle, 57°; and Kiandra, 28°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·489. Extra station: Nowra, max. 64°, min. 37°, and fine. Brewarrina, max. 64°, min. 35°, and fine. (For further particulars see map.)

Queensland.—Generally fine, with south to west winds, and moderate sea. At Cooktown strong S.E. wind, rough sea; no rain fallen. Extremes of barometers and temperature: Brisbane, 30·36; Cape Moreton, 55°; Townsville, 29·97; and Cooktown, 78°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.E., 18, fine, smooth sea, temperature 60°; Cape Otway, E.S.E., 8, fine, smooth sea, temperature 56°; Melbourne, S., 8, fine, temperature 57°; Cape Schanck, N.W., 8, fine, but cloudy, smooth sea, temperature 56°; Wilson's Promontory, W., 13, fine but cloudy, smooth sea, temperature 57°; Lakes Entrance, E., 23, fine but cloudy, temperature 56.

New South Wales.—Menindie, calm, fine, temperature 53°; Wentworth, N., fine, temperature 50°; Deniliquin, calm, fine, temperature 62°; Eden, S., 14, fine, moderate sea, temperature 56°; Moruya, E.N.E., 28, fine, smooth sea, temperature 56°; Cape St. George, S., 14, fine, moderate sea, temperature 56°; Sydney, S.E., 8, fine but hazy, smooth sea, temperature 57; Newcastle, S., 14, fine, smooth sea, temperature 58°; Port Macquarie, S., 42, fine, smooth sea, temperature 65°; Clarence River, S., 28, fine, smooth sea, temperature 64°; Dubbo, S., fine, temperature 55°; Goulburn, N.W., 14, fine, temperature 53°.

STATE OF RIVERS.

Barwon, 40 feet 4 inches above summer level; Brewarrina, 32 feet 8 inches above summer level; Goodooga, 9 feet 10 inches above summer level; Gundagai, 13 feet 9 inches above summer level; Louth, 34 feet 4 inches above summer level; Mogil Mogil, over banks; Mungindi, 26 feet above summer level; Nyngan, over banks; Tilpa, 36 feet above summer level. Murrumbidgee: At Wagga, 19 feet 6 inches above summer level; at Hay, 6 feet above summer level; at Balranald, 9 feet 6 inches above summer level. Murray: At Albury, 9 feet 1 inch above summer level; at Euston, 7 feet 8 inches above summer level. Darling: At Wentworth, 10 feet 1 inch above summer level; at Pooncarie, 21 feet 2 inches above summer level; at Menindie, 24 feet above summer level; at Wilcannia, 32 feet above summer level; at Bourke, 36 feet 9 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 25.

Sun rises at 6.29, sets at 5.35; Moon, 0.30 a.m., 12.46 p.m.; Mercury, 5.40 a.m., 4.33 p.m.; Venus, 5.15 a.m., 3.32 p.m.; Mars, 9.11 a.m., 10.22 p.m.; Jupiter, 8.10 a.m., 8.04 p.m.; Saturn, 4.4 a.m., 2.2 p.m. Full Moon, 15th; New Moon, 29th.

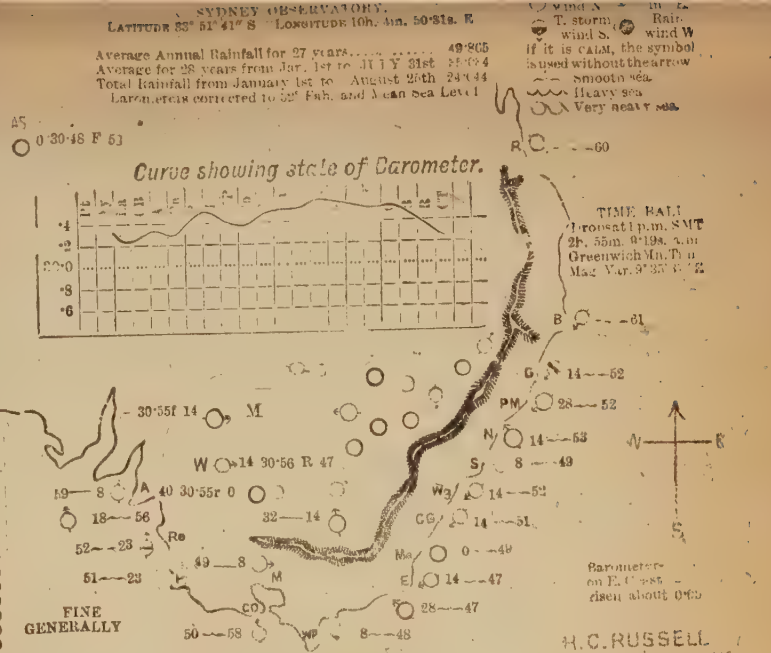
High water at Fort Denison, August 25: 3.10 a.m., 3.50 p.m.

Stations	wt	Max	Min	rain
Albury	n	60	35	0
Armidale	n	57	31	0
Balranald	b	77	27	0
Bathurst	n	60	28	0
Bend'm'n	n	55	30	0
Bodalla	b	65	35	0
Bourke	b	68	39	0
Bundarra	b	65	37	0
C'md'n H	b	65	43	0
C.St.Geo	b	59	49	0
Carcoar	n	50	34	0
Casino	b	70	41	0
Cassilis	n	54	35	0
Clarence	c	69	48	0
C'nd'b'lin	b	60	30	0
Cooma	n	63	22	0
Coonab'n	n	61	27	0
Cowra	b	59	39	0
Deniliq'n	n	68	29	0
Dubbo	b	61	30	0
Eden	n	56	40	0
Euston	b	75	36	0
Forbes	b	—	37	0
Gl'n Inn's	b	62	33	0
Goulburn	b	60	25	0
Grafton	b	72	46	0
Ea.				
Gulgong	b	55	30	0
Gunned'h	b	59	37	0
Hay	b	64	40	0
Inverell	b	65	35	0
Kiandra	n	51	11	0
Lismore	b	70	48	0
Maitland	b	66	39	0
Marsdens	n	62	40	0
Menindie	b	80	44	0
Molong	n	64	31	0
M'r'ng'r'll	b	63	34	0
Moree	b	72	42	0
Moruya	b	60	41	0
Moss Vale	b	53	35	0
Mt. Hope	b	61	41	0
M. Vict'ria	n	52	30	0
Mudgee	b	67	28	0
M'rr'm'bh	b	62	43	0
M'rr'ndi	n	55	37	0
Mus'br'k	b	63	30	0
Narrabri	b	60	44	0·02
Newcastle	b	63	43	0
Orange	n	49	29	0
Picton	b	58	37	0
P. M'q'rie	b	65	43	0
P. St'ph'n	b	60	37	0
Q'nbeyan	b	53	35	0
Quirindi	b	69	42	0
Singleton	b	60	46	0
Sydney	h	59	44	0
Tam'w'rth	n	60	33	0
Taralga	n	66	25	0
Taree	g	68	43	0
Tnt'rfield	b	60	51	0
Wagga	n	62	45	0
Walcha	n	53	23	0
Walgett	b	60	41	0
Warrah	n	69	34	0
W'ntw'rth	b	65	40	0
Wilcannia	b	—	—	0
W'll'ng'ng	b	64	44	0
Young	n	68	30	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51' 41" S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·805
Average for 28 years from Jan. 1st to JULY 31st 25·994
Total Rainfall from January 1st to August 26th 24·844
Barometers corrected to 32° Fahr. and Mean Sea Level



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, heavy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Max gives the maximum temperature for previous 24 hours. Min the corresponding minimum temperature from the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CE, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, showery, with light west wind and rough sea. Barometer, 30·28; temperature, 53°; and rainfall, 0·14 inches.

South Australia.—Fine and clear inland; cold, with scattered clouds on and near the coast; in Northern Territory cloudy and gloomy, winds generally are light, blowing from different points between N. and N.E.; barometers have fallen slightly, and the sea is moderate. Rainfall: Cape Borda, 0·06; and Port Lincoln, 0·01. Extremes of barometers and temperature on coast—Port Augusta, 30·38; Cape Borda, 30·24; M'Donnell Bay, 49°; and Adelaide, 59°. In Northern Territory, Daly Waters, 30·18 and 68°; Port Darwin, 30·06 and 78°.

Victoria.—Generally fine and cold, with light N.E. to N.W. winds, steady barometers, and smooth sea. Frosty inland; passing showers at Omeo; and heavy dew at Melbourne. No rain fallen. Extremes of barometers and temperature: Melbourne, 30·51; Portland, 30·36; Horsham, 55°; and Omeo, 35°.

Tasmania.—Generally fine, with light S. to E. winds, fallen barometers, and smooth sea. Foggy at Low Heads; no rain fallen. Extremes of barometers and temperature: Low Heads, 30·13 and 42°; Southport, 30·36 and 46°.

New Zealand.—Showery on West coast, with rough sea. Passing showers and squally at Russell; heavy showers at Wellington, and snowing at Bluff. Barometers: Russell, 29·8; Wellington, 29·4; and Bluff, 29·5. Winds generally S.W.

New South Wales.—Fine, clear, and cold throughout, with high and almost steady barometers, light variable winds and calms, and moderate smooth sea; severe frost along the range as far north as Armidale. Narrabri with two points is the only station reporting rain fallen during the last 24 hours. Extremes of barometers and temperature at 9 a.m.: Wollongong, 30·57; Forbes, 30·23; Lismore, 54°, and Cooma, 39°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·563. Extra station: Brewarrina, max. 65°, min. 34°, and fine. (For further particulars see map.)

Queensland.—Generally fine, with light S.E. to S.W. winds, and moderate sea; strong S.E. wind in squalls and high sea at Cooktown. Rainfall: 0·16 at Cape Moreton. Extremes of barometers and temperature: Brisbane, 30·44; Cape Moreton, 59°; Townsville, 29·97; and Cooktown, 80°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N., 18, fine, smooth sea, temperature 63°; Cape Otway, N., 18, fine, but cloudy, temperature 62°; Melbourne, N., 13, fine, temperature 60°; Cape Schanck, W., 8, fine, but cloudy, smooth sea, temperature 55°; Wilson's Promontory, W., 13, fine and squally, smooth sea, temperature 57°; Lakes Entrance, W., 8, fine but cloudy, temperature 59°.

New South Wales.—Menindie, E., fine and clear; Wentworth, N., fine, temperature 55°; Deniliquin, N.E., fine and clear, temperature 62°; Eden, N.E., 14, fine, smooth sea, temperature 56°; Moruya, N.E., 23, fine, smooth sea, temperature 59°; Cape St. George, W., 14, fine, smooth sea, temperature 58°; Newcastle, N.E., 14, fine, smooth sea, temperature 64°; Port Macquarie, S.S.E., 28, fine, smooth sea, temperature 69°; Clarence River, S., 23, fine, smooth sea, temperature 66°; Dubbo, calm, fine, temperature 60°; Goulburn, N.W., 14, fine, temperature 53°.

STATE OF RIVERS.

Barwon, 39 feet 6 inches above summer level; Brewarrina, 32 feet 6 inches above summer level; Goodooga, 9 feet above summer level; Gundagai, 10 feet 10 inches above summer level; Louth, 34 feet 10 inches above summer level; Mogil Mogil, over banks; Mungindi, 26 feet above summer level; Namoi, over banks; Tilla, 37 feet above summer level. Murrumbidgee: At Wagga, 19 feet 6 inches above summer level; at Hay, 6 feet 9 inches above summer level. Murray: At Albury, 7 feet 4 inches above summer level; at Euston, 7 feet 6 inches above summer level; at Darling: At Wentworth, 10 feet 5 inches above summer level; at Pooncarie, 21 feet 2 inches above summer level; at Menindie, 24 feet 1 inch above summer level; at Wilcannia, 32 feet 7 inches above summer level; at Bourke, 36 feet 11 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 26.

Sun rises at 6.28, sets at 5.36; Moon, 3.28 a.m., 1.42 p.m.; Mercury, 5.37 a.m., 4.28 p.m.; Venus, 5.15 a.m., 3.14 p.m.; Mars, 9.9 a.m., 10.21 p.m.; Jupiter, 8.7 a.m., 8.20 p.m.; Saturn, 4.1 a.m., 1.59 p.m. Full Moon, 15th; New Moon, 29th.

High water at Fort Denison, August 26: 4.32 a.m. 5.14 p.m.

Stations	wt	Mx	Mn	r/n
Albury	b	60	31	0
Armidale	b	42	37	0
Balranald	b	74	29	0
Bathurst	c	62	32	0
Bend'm'r	n	58	33	0
Bodalla	b	69	32	0
Bourke	c	71	49	0
Bundarra	b	66	42	0
C'md'a H	b	65	45	0
C.St.Geo	g	63	58	0
Carcoar	g	53	38	0
Casino	u	73	41	0
Cassilis	o	56	39	0
Clarence	c	70	51	0
C'nd'b'lin	g	64	31	0
Cooma	n	64	23	0
Coonab'n	b	69	36	0
Cowra	g	62	41	0
Deniliq'n	b	70	32	0
Dubbo	b	68	36	0
Eden	b	56	41	0
Euston	b	58	36	0
Forbes	g	—	41	0
Gl'n Inn's	b	59	36	0
Goulburn	b	60	31	0
Grafton	f	75	43	0
Gulgong	c	57	32	0
Gunned'h	b	64	42	0
Hay	b	68	43	0
Inverell	b	68	35	0
Kiandra	n	55	17	0
Lismore	h	73	45	0
Maitland	b	65	38	0
Marsdens	c	65	41	0
Menindie	g	72	43	0
Molong	c	64	35	0
M'r'ng'r'll	g	62	40	0
Moree	h	74	46	0
Moruya	g	64	39	0
Moss Vale	h	56	38	0
Mt. Hope	u	64	47	0
M.Vict'ria	c	51	38	0
Mudgee	h	70	31	0
M'r'm'bh	c	69	49	0
M'r'r'ndi	b	57	40	0
Mus'br'k	b	65	31	0
Narrabri	h	68	43	0
Newcastle	b	67	45	0
Orange	c	50	32	0
Picton	g	60	35	0
P. M'q'rie	b	66	44	0
P. St'ph'n	h	63	40	0
Q'nbeyan	c	55	35	0
Quirindi	b	71	40	0
Singleton	b	61	44	0
Sydney	h	63	46	0
Tamw'rth	b	64	34	0
Taralga	g	64	29	0
Taree	b	70	46	0
T'nt'rfield	g	64	48	0
Wagga	b	64	44	0
Walcha	b	55	23	0
Walgett	g	66	48	0
Warrah	b	60	46	0
W'ntw'rth	b	68	41	0
Wilcannia	c	—	—	0
W'll'ng'ng	g	64	44	0
Young	g	76	36	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 97 years..... 49·26in.
Average for 28 years from Jan. 1st to JULY 31st ... 3·14
Total Rainfall from January 1st to August 26th 24·45
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.

FINE GENERALLY

TIME BALL

H. C. RUSSELL

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky, c, detached clouds; d, drizzling rain, f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature. r/n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Round the state of Barometer is given in figures at Albury, Deniliquin, West north Menindie, Bourke and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine; in north light east winds, in south parts calms and west winds; cloudy at Albany; rough sea at Cossack; no rain fallen. Extremes of barometer and temperature: Perth, 30·33; Cossack, 30·06; Ashburton, 73., and Esperance Bay, 43°.

South Australia.—Fine but cloudy on and near the coast, fine and clear inland, gloomy and threatening rain in Northern Territory; winds generally are light and northerly, with calms in place; barometers have fallen, and the sea is moderate; showery at Cape Boorda. Rainfall: Daly Waters, 0·15; Streaky Bay, 0·03; Cape Borda, 0·25, and Port Lincoln, 0·21. Extremes of barometers and temperature on coast—M'Donnell Bay, 30·14 and 45°; Streaky Bay, 30·20, and Eucla, 56° in Northern Territory—Daly Waters, 30·23 and 61°; Port Darwin, 29·97 and 77°.

Victoria.—Generally fine and cold, with light N.E. to N.W. winds, fallen barometers, and smooth sea. Squally at Wilson's Promontory. Frosty inland; heavy dew at Melbourne, but no rain fallen. Extremes of barometers and temperature: Omeo, 30·10 and 40°; Hamilton, 30·29; and Horsham, 55°.

Tasmania.—Generally fine, with light variable winds, steady barometers, and smooth sea. Foggy at Hobart, but no rain fallen. Extremes of barometers and temperature: Low Heads, 30· 6 and 42°; Falmouth, 30·31; and Southport, 50°.

New Zealand.—Generally fine, with S.W. to N.W. winds. Gloomy at Wellington. Barometers: Russell, 29·9; Wellington, 29·3; and Bluff, 29·5.

New South Wales.—In N.E. parts and in extreme south fine and clear, in the remainder of the colony unsettled and threatening, with thick haze in places; calm weather prevails inland; on the coast the winds are light from N.W. to S.W.; barometers have fallen slightly; temperature is milder, and the sea is smooth to moderate, but rough off Cape St. George. In the upper part of its course the Darling is falling, below Bourke it is stationary. The Murray and Murrumbidgee are both rising. No rain has fallen during the last 24 hours. Extremes of barometers and temperature at 9 a.m.: Deniliquin, 30·44; Forbes, 30·22; Bourke 59°; and Cooma, 32°. Reading of standard barometer at Sydney corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·425. Extra station: Brewarrina, max. 73°, min. 41°, and cloudy. (For further particulars see map.)

Queensland.—Generally unsettled, with S.E. to S.W. winds, and smooth sea; stormy, showery, with very strong S.E. wind and rough sea at Cooktown. Rainfall: Rockhampton and Cape Moreton, 0·03; Cooktown, 0·01. Extremes of barometers and temperature: Brisbane, 30·40.; Townsville, 29·92; Cooktown, 80°; and Cape Moreton, 61°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.S.E., 12, cloudy, smooth sea, temperature 60°; Wilson's Promontory, W.S.W., 18, cloudy smooth sea, temperature 55°.

New South Wales.—Menindie, calm, cloudy and dull, temperature 56°; Wentworth, N., fine, temperature 57°; Deniliquin, calm, fine, temperature 54°; Eden, S., 14, fine, smooth sea, temperature 60°; Moruya N.E., 14, overcast and dull, smooth sea, temperature 58°; Cape St. George, S.E., 14, cloudy and dull, moderate sea, temperature 59°; Sydney, S.E., 8, thick haze, and dull, smooth sea, temperature 58°; Newcastle, S., 14, fine, smooth sea, temperature 61°; Port Macquarie, S.S.E., 28, cloudy, moderate sea, temperature 69°; Clarence River, N.E., 14, dull, smooth sea, temperature 67°; Widgett, W., cloudy, temperature 66°; Dubbo, calm, fine, but cloudy, temperature 60°; Goulburn, calm, dull, temperature 56°.

STATE OF RIVERS.

Barwon, 38 feet 9 inches above summer level; Brewarrina, 33 feet 4 inches above summer level; Goodooga, 8 feet 2 inches above summer level; Guadagai, 8 feet 9 inches above summer level; Louth, 35 feet 2 inches above summer level; Mogil Mogil, over banks; Mungindi, 26 feet above summer level; Namoi, over banks; Tilpa 37 feet 3 inches above summer level. Murrumbidgee: At Wagga, 16 feet 3 inches above summer level; at Hay, 7 feet 3 inches above summer level; at Balranald, 9 feet 2 inches above summer level. Murray: At Albury, 5 feet 2 inches above summer level; at Euston, 7 feet 3 inches above summer level. Darling: At Wentworth, 10 feet 9 inches above summer level; at Pooncarie, 31 feet 3 inches above summer level; at Menindie, 24 feet 2 inches above summer level; at Wilcannia, 32 feet 8 inches above summer level; at Bourke, 37 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 27.

Sun rises at 6.2°, sets at 5.37; Moon, 4.21 a.m., 2. 6 p.m.; Mercury, 5.34 a.m., 4.23 p.m.; Venus, 5.15 a.m., 3.36 p.m.; Mars, 9.7 a.m., 10.20 p.m.; Jupiter, 8.3 a.m., 8. 8 p.m.; Saturn, 3.57 a.m., 1.5 p.m. Full Moon, 15th; New Moon, 29th.

High water at Port Denison, August 27: 5.51 a.m., 6 28 p.m.

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 1m. 50·81s. E.

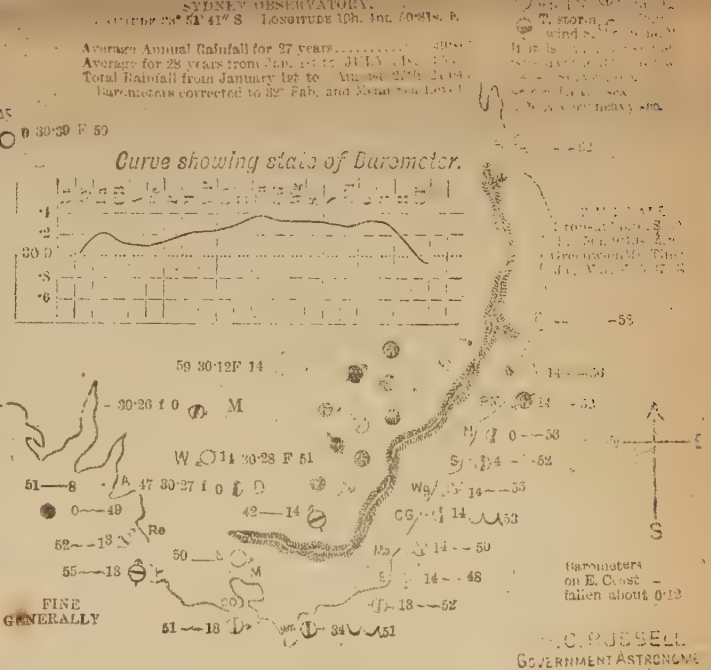
Average Annual Rainfall for 27 years.....

Average for 28 years from Jan. 1st to July 31st.....

Total Rainfall from January 1st to ...

Barometers corrected to 32° Fah. and Mean Sea Level.

Illawy	c	60 38	0	
Armidale	g	47 42	0·02	
Balranald	c	78 35	0	
Bathurst	c	58 35	0	
Bend'm'r	c	60 45	0·14	
Bodalla	c	64 40	0	
Bourke	g	70 56	0·43	
Bundarra	c	67 41	0	
C'md'n H	c	65 51	0	
C. St. Geo	u	60 53	0	
Carcoar	g	52 41	0·03	
Casino	u	74 49	0	
Cassilis	r	57 41	0·12	
Clarence	c	70 56	0	
C'nd'b'lin	r	59 32	0·61	
Cooma	n	60 32	0	
Coonab'n	r	67 45	0·37	
Cowra	r	60 33	0·24	
Deniliq'n	g	71 35	0	
Dubbo	r	64 43	0·08	
Eden	u	61 46	0	
Euston	b	79 42	0·02	
Forbes	r	— 44	0·15	
Gl'n Inn's	o	56 39	0	
Goulburn	S	56 37	0	
Grafton	g	74 47	0	
Gulgong	r	59 37	0	
Gunned'h	c	61 50	0	
Hay	b	69 43	0·15	
Inverell	g	62 35	0	
Kiandra	s	48 29	0	
Lismore	c	74 35	0	
Maitland	r	66 45	0	
Marsdens	r	68 46	0·73	
Menindie	b	64 48	0	
Molong	r	65 35	0·07	
M'r'ng'r'll	r	60 44	0·62	
Moree	r	65 50	0·11	
Moruya	g	63 43	0	
Moss Vale	u	54 43	0	
Mt. Hope	r	61 52	1·10	
M. Vict'ria	u	55 40	0	
Mudgee	r	63 38	0	
M'rr'mb'dh	b	55 30	0·35	
M'rr'ndi	r	57 45	0·04	
Mus'br'k	r	64 40	0·07	
Narrabri	r	70 43	0·21	
Newcastle	g	69 54	0	
Orange	c	53 36	0·10	
Picton	g	62 37	0	
P. M'q'rie	r	66 51	0·02	
P. St'ph'n	c	67 46	0	
Q'nbeyan	u	51 36	0	
Quirindi	r	72 40	0·14	
Singleton	u	63 50	0	
SYDNEY	g	61 50	0	
Tamw'rth	g	65 37	0·11	
Taralga	r	63 28	0·10	
Taree	u	71 51	0·01	
T'nt'rfield	g	64 52	0	
Wagga	r	60 41	0·50	
Walcha	u	56 34	0·11	
Walgett	r	70 52	0·30	
Warrah	r	66 48	0	
W'ntw'rth	b	71 47	0	
Wilcannia	c	— —	0	
W'll'ng'ng	g	63 50	0	
Young	r	64 35	0·44	



NOTES EXPLANATORY OF MAP

At the list of stations the column headed W.I. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature. The rain for the previous 24 hours. The sun box used in the map are explained on the margin. At each station the wind symbol is placed and vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with rain, cloudy weather; and a black spot, raining. Next to this symbol are places figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: At, Perth; Ay, Albany; Eu, Eucla; CE, Cape Borda; A, Adelaide; Re, Robe; P, Portland M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Mo, Moruya; G S, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the progress of, beginning with Western Australia, and passing along eastwards, southerly winds preceding them, and southerly following.

Western Australia.—On south coast fine, with light variable winds and calm, fallen barometers, and smooth sea; no rain fallen. Extremes of barometers and temperature: Esperance Bay, 30·16 and 47°; Albany, 29·98.

South Australia.—Generally more or less clouded but fine, with light variable winds, fallen barometers and moderate sea, gloomy and threatening S. and S.E. of Mount Lofty Ranges, and heavy showers at Cape Borda and M'Donnell Bay; light rain fallen on and near the coast and in S.E. parts heaviest at Luemdale, 0·40; at Cape Borda and Mount Gambier, 0·36 and 0·29 respectively. Extremes of barometers and temperature: On coast—Eucla, 30·26 and 56°; Cape Borda, 30·12 and 49°. On Northern Territory—Daly Waters, 30·17 and 67°. Rainfall, 0·52; Port Darwin, 29·94 and 78°.

Victoria.—Generally cloudy and threatening, with light E. to N. winds, fallen barometers, and moderate sea. Squally, with rough sea, at Wilson's Promontory; 0·21 inch rainfall at Horsham. Extremes of barometers and temperature: Lakes Entrance, 30·29; Echuca, 30·13; Horsham, 56°; and Omeo, 39°.

Tasmania.—Generally cloudy and gloomy, with light S. to E. winds, risen barometers, and moderate sea. Rough sea at Circular Heads, foggy at Hobart. Extremes of barometers and temperature: Southport, 30·41 and 48°; Circular Heads, 30·2 and Hobart, 45°.

New Zealand.—Generally squally from S.W., with hailstorms and snow, especially in south parts. Barometers: Russell, 29·8; Wellington and Bluff, 29·5.

New South Wales.—Overcast and gloomy throughout the colony; raining steadily along the western slope of the range and at a few places in north-coast districts. Snowing since 8 a.m. at Kiandra. Winds: Inland, N. to E. and calms; on the coast, light W. to S. Barometers have fallen slightly and the sea is moderate, but rough from S.E. off Cape St. George. During the night light rain has fallen west of the range generally, heaviest in the districts between Lachlan and Murrumbidgee Rivers, where the stations report from half to over one inch fallen. Extremes of barometers and temperature at 9 a.m.: Moruya, 30·39; Forbes, 30·04; Bourke, 59°; and Kiandra, 34°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·31. Extra station: Brewarrina, max. 68°, min. 43°. Rainfall, 0·26, and cloudy. (For further particulars see p. .)

Queensland.—Cloudy in South, with W. to E. winds; fine in north, with S.E. winds and calm; sea moderate; no rain fallen. Strong S.E. wind continues to blow at Cooktown. Extremes of barometers and temperature: Brisbane, 30·26 and 58°; Cooktown, 29·95 and 81°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 13, threatening, smooth sea, temperature 57°; Cape Otway, E.S.E., 28, gloomy and misty, smooth sea, temperature 54°; Melbourne, E.S.E., light rain and gloomy, temperature 53°; Cape Schanck, E., 18, fine but cloudy, smooth sea, temperature 55°. Wilson's Promontory, E., 34, cloudy and squally, rough sea, temperature 51°; Lakes Entrance, E., 24, cloudy and squally, temperature 54°.

New South Wales.—Menindie, calm, fine and warm, temperature 61°; Wentworth, W., fine and warm temperature 59°; Deniliquin, calm, fine and warm, temperature 62°; Eden, E. 14, fine, smooth sea temperature 54°; Moruya S., 11, overcast, smooth sea, rough sea temperature 54°; Sydney, S., 6, raining, smooth, moderate sea temperature 57°; Newcastle, S.E., 14, Cl., gloomy sea, temperature 62°; Port Macquarie, E., 14, cloudy, moderate sea temperature 67°; Clarence River, N.E., 14, dull, moderate sea temperature 67°; Wilcannia, N.W., showery, temperature 66°; Wagga, N.E. 14, raining, temperature 59°; Goulburn, E. 14, temperature 52°.

STATE OF RIVERS.

Barwon, 38 feet above summer level; Brewarrina, 52 feet 3 inches above summer level; Condoboro, 7 feet above summer level; Gundagai, feet inches above summer level; Louth, 10 feet 5 inches above summer level; Mogil Mogil, over banks; Murrumbidgee: At Wagga, 12 feet 3 inches above summer level; at Balranald, 9 feet 3 inches above summer level. Murray: At Albury, feet above summer level; at Euston, 7 feet 1 inches above summer level. Darling: At Wentworth, 11 feet above summer level; at Pooncarie, 21 feet 3 inches above summer level; at Wilcannia, 33 feet 8 inches above summer level; at Bourke, 37 feet 5 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 28.

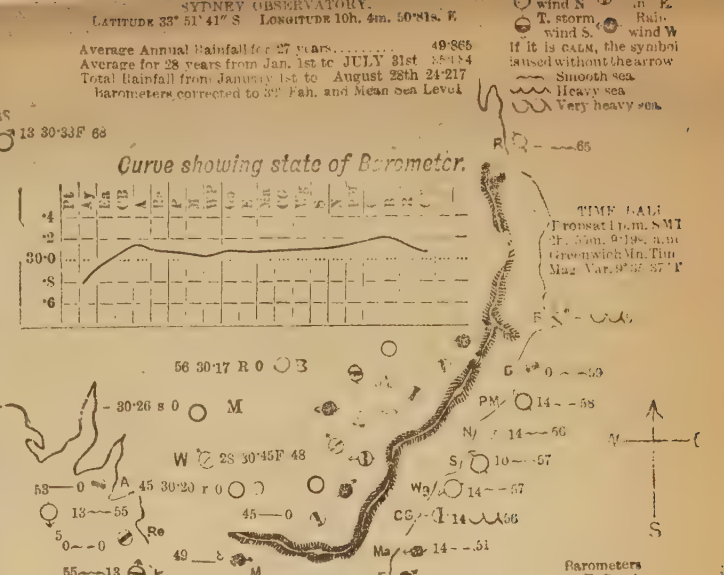
Sun rises at 6.25, sets at 5.37; Moon, 5.17 a.m., 5.53 p.m.; Mercury, 5.32 a.m., 4.18 p.m.; Venus, 5.16 a.m., 5.38 p.m.; Mars, 9.4 a.m., 10.20 p.m.; Jupiter, 8.0 a.m., 8.14 p.m.; Saturn, 3.51 a.m., 1.52 p.m. Full Moon, 15th; New Moon, 29th. High water at Port Denison, August 28: 6.58 a.m., 7.27 p.m.

Albury	g	53 42 0·36	
Armidale	g	53 48 0·16	
Balranald	f	79 27 0·52	
Bathurst	u	52 44 0·16	
Bend'm'r	g	54 4 0·22	
Bodalla	r	57 48 1·02	
Bourke	b	76 47 0	
Bundarra	c	60 51 0·12	
C'md'n H	b	67 55 0	
C.St.Geo	c	58 52 0·70	
Carcoar	g	50 41 0·20	
Casino	u	75 55 0·05	
Cassilis	g	54 49 0·27	
Clarence	c	71 56 0	
C'nd'b'lin	f	60 31 0·3	
Cooma	r	49 29 0·45	
Coonab'n	b	58 40 0·62	
Cowra	g	57 44 0·25	
Deniliq'n	b	69 37 0·16	
Dubbo	r	57 48 0·48	
Eden	r	56 53 0·21	
Euston	b	80 35 0	
Forbes	f	— 49 0·45	
Gl'n Inn's	r	50 46 0	
Goulburn	g	49 42 0·21	
Grafton	r	74 44 0·03	
Ha.			
Gulgong	r	60 38 0·31	
Gunned'h	b	63 52 0·14	
Hay	b	68 43 0·20	
Inverell	g	63 35 0·27	
Kiandra	c	40 33 0·84	
Lismore	c	76 48 0	
Maitland	u	66 52 0·13	
Marsdens	c	59 51 0·16	
Menindie	b	67 50 0	
Molong	b	68 37 0·64	
M'r'ng'r'll	f	60 47 0·13	
Morce	b	62 52 0·24	
Moruya	r	59 49 0·94	
Moss Vale	u	51 46 0·11	
Mt. Hope	b	53 44 0·25	
M. Vict'ria	b	47 40 0·31	
Mudgee	c	56 43 0·43	
M'rr'm'bh	c	52 56 0·50	
M'rr'mdi	c	60 50 0·64	
Mus'br'k	g	65 50 0·21	
Narrabri	g	63 51 0·02	
Newcastle	g	65 51 0·01	
Orange	g	50 42 0·48	
Pictor	b	55 48 0·14	
P. M'q'rie	b	67 52 0	
P. St'ph'n	f	69 46 0·03	
Q'nbeyan	r	49 46 0·52	
Quirindi	g	58 50 0·23	
Singleton	g	59 55 0·25	
Sydney	c	60 53 0·17	
Tam'w'rth	c	59 50 0·06	
Taralga	u	61 31 0·27	
Taree	b	67 53 0·03	
T'nt'rfield	r	60 56 0·32	
Wagga	b	57 45 0·27	
Walcha	c	54 43 0·24	
Walgett	f	67 53 0·09	
Warrah	b	67 50 0·43	
W'ntw'rth	c	70 42 0·01	
Wilcannia	b	— — 0	
W'll'ng'ng	b	60 54 0·81	
Young	c	56 46 0·32	

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to JULY 31st 35·184
Total Rainfall from January 1st to August 28th 24·217
Barometers corrected to 32° Fah. and Mean Sea Level



Barometers on E. Coast — fallen about 0·15

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; Rn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla, CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; Mb, Melbourne; W.P., Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C.G. Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle P.M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and gloomy, with fresh westerly winds, fallen barometers, and smooth sea: showery at Perth. Rainfall: Geraldton 0·24, Perth 0·30. Extremes of barometers and temperature: Ashburton 30·07 and 73°, Albany 29·66, and Esperance Bay 55°

South Australia.—Generally fine, with scattered clouds; gloomy and foggy in places; light variable winds and calms, fallen barometers, and moderate sea; light rain fallen south of Port Augusta, but partial—greatest at Beechport, where one inch fell; Lucindale 0·58, Crafers 0·50. Extremes of barometers and temperature: On coast—Eucla, 29·98 and 66°; Port Augusta, 30·18; and M'Donnell Bay, 48°. In Northern Territory—Daly Waters, 30·12 and 72°; Port Darwin, 29·93 and 81°.

Victoria.—Generally cloudy and unsettled, with light N. to E. winds, fallen barometers, and smooth sea; rough sea at Wilson's Promontory, passing showers at Melbourne, and misty on coast. Rainfall: Omeo, 0·32; Horsham, 0·70; Portland, 0·29; Wilson's Promontory, 0·19; Ballarat, 0·16; and several other stations lesser quantities. Extremes of barometers and temperature: Horsham, 30·11 and 56°; Wilson's Promontory, 30·02; and Hamilton, 46°.

Tasmania.—Generally unsettled, with N.E. to S.E. winds and calm, and smooth sea; heavy rain at Low Heads, light rain and rough sea at Falmouth, foggy at Hobart. Rainfall: Low Heads, 0·18. Extremes of barometers and temperature: Southport, 30·31; 30·22 at Low Heads; Falmouth, 48°; and 42° at Circular Heads.

New Zealand.—Generally fine, with fresh S.W. winds. Hard frost during the night. Barometers: Russell, 30·0; Wellington, 29·8; Bluff, 29·9.

Queensland.—Generally fine, with N. to E. winds in south, S.E. winds and calm in north parts; rough sea at Cape Moreton; showery at Cooktown. Rainfall: Cape Moreton, 1·40; Cooktown, 0·10. Extremes of barometers and temperature: Brisbane, 30·21; Townsville, 29·98; Cape Moreton, 62°; and Cooktown, 81°.

New South Wales.—In western territorial division, fine and calm; in central and eastern divisions, overcast and threatening, with fog in places; light variable winds, fallen barometers, risen temperature, and smooth to moderate sea, except at Cape St. George and Eden, where it is rough. Showery in extreme north and south coast and mountain districts, and about Dubbo. During the last 24 hours light rain has fallen generally, principally near the range, and heaviest in south parts; 12 stations report half to one inch fallen, the heaviest of these being on the coast. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·45; Cape St. George, 30°; Lismore, 60°; and Kiandra, 37°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·148. Extra stations: Camden, rainfal, 0·50; Bega, 0·62 inch. (For further particulars see map.)

3 P.M. OBSERVATIONS.

Victoria.—Portland, E., 5, showery, smooth sea, temperature 56°; Cape Otway, N.W., 28, cloudy, smooth sea, temperature 57°; Wilson's Promontory, W.N.W., 24, squally, threatening in N.E., moderate sea, temperature 54°.

New South Wales.—Menindie, calm, fine, temperature 61°; Wentworth, W.N.W., fine, temperature 57°; Deniliquin, calm, fine, temperature 64°; Eden, S.W., 14, fine, little sea, temperature 69°; Moruya, S.E., 28, fine, rough sea, temperature 59°; Cape St. George, S.W., 14, fine, heavy sea, temperature 64°; Sydney, N.W., cloudy, smooth sea, temperature 63°; Newcastle, N.W., 20, fine, smooth sea, temperature 68°; Port Macquarie, N.N.E., 28, unsettled, moderate sea, temperature 71°; Clarence River, N.E., 10, cloudy, moderate sea, temperature 69°; Walgett, calm, fine, temperature 68°; Dubbo, calm, fine, temperature 62°; Goulburn, calm, fine, temperature 47°; Brewarrina, S.E., fine.

STATE OF RIVERS.

Barwon, 37 feet 6 inches above summer level; Brewarrina, 32 feet above summer level; Goodooga, 6 feet 3 inches above summer level; Gundagai, 6 feet 8 inches above summer level; Louth, 35 feet 8 inches above summer level; Mogil Mogil, over banks; Mungindi, 27 feet above summer level; Namoi, over banks; Tilpa 37 feet 8 inches above summer level. Murrumbidgee: At Wagga, 10 feet 3 inches above summer level; at Hay, 8 feet above summer level; at Balranald, 9 feet 9 inches above summer level. Murray: At Albury, 5 feet 9 inches above summer level; at Euston, 8 feet above summer level. Darling: At Wentworth, 11 feet above summer level; at Pooncarie, 21 feet 3 inches above summer level; at Menindie, 24 feet 2 inches above summer level; at Wilcannia, 32 feet 9 inches above summer level; at Bourke, 37 feet 5 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 30.

Sun rises at 6.23, sets at 5.39; Moon, 6.50 a.m., 6.12 p.m.; Mercury, 5.30 a.m., 4.16 p.m.; Venus, 5.16 a.m., 3.12 p.m.; Mars, 9.0 a.m., 10.18 p.m.; Jupiter, 7.54 a.m., 8.8 p.m.; Saturn, 3.17 a.m., 1.45 p.m. Full Moon, 15th; New Moon, 29th. High water at Fort Denison, August 30: 8.40 a.m., 9.3 p.m.

Albany	b	62 47	0
Amicable	b	46 40	0
Balranald	u	75 27	0
Bathurst	g	63 32	0
Bend'm'r	n	63 6	0
Bodalla	c	70 [illegible]	0·10
Bourke	b	81 51	0
Bunda'ra	b	66 42	0
B'mb'n H	b	70 48	0
C...t. Geo	b	69 64	0
Cascoar	u	55 41	0
C'sino	b	78 45	0
C'ss'lis	b	69 43	0
Clarence	b	75 55	0
C'nd'blin	b	66 [illegible]	0·05
Cooma	n	61 50	0
Cooash'n	b	69 36	0
Cowra	g	58 [illegible]	0
Deniliq'n	g	69 40	0
Dubbo	[illegible]	69 37	0
Eden	c	59 43	0
Euston	c	78 48	0
Forbes	b'	— 44	0·06
'n Inn's	b	62 [illegible] 6	0
Goulburn	b	59 34	0·07
Grafton	b	85 48	0

LATITUDE 33° 51' 41" S LONGITUDE 10h. 4m. 50·5s. E

Average Annual Rainfall for 27 years..... 49·805
Average for 26 years from Jan. 1st to JULY 31st 25·084
Total Rainfall from January 1st to August 30th 24·219
Barometers corrected to 32° Fahr. and Mean Sea Level

T. storm, ● hail, ≈ wind S, ● wind W
If it is calm, the symbols appear without the arrow
Smooth sea.
Heavy sea.
Very heavy sea.

Curve showing state of Barometer.

TIME BALL
Drops at 1 p.m. S.M.T.
Also from 0·198, 2·00
Greenwich Mn. Time
Mag. Var. [illegible]

Ea.			
Gulgong	b	62 34	0
Gunned'h	b	62 [illegible]	0
Hay	h	69 39	0
Inverell	h	[illegible]	0
Kiandra	c	45 31	0·62
Lismore	b	81 51	0
Maitland	b	67 42	0
Marsdens	c	65 26	0·02
Menindie	g	58 —	0
Molong	b	66 57	0
M'r'ng'r'll	b	[illegible] 43	0
Moree	g	77 49	0
Moruya	g	[illegible] 45	0·09
Mossvale	n	57 49	0
Mt. Hope	b	[illegible] 3	0
M. Victoria	b	55 [illegible] 8	0
Mudgee	e	74 50	0
M'r'm'bh	c	67 40	0
M'r'r'ndi	b	60 44	0
Mus'br'k	b	72 36	0
Narrabri	c	71 43	0
Newcastle	b	70 48	0
Orange	c	56 [illegible]	0
Picton	b	65 38	0·01
P. M'q'rie	b	58 45	0
P. St'ph'n	b	60 41	0
Q'nbeyan	g	57 39	0
Quirindi	c	72 41	0
Singleton	b	55 42	0
SYDNEY	b	67 48	0
Tamw'th	b	67 38	0
Taralga	b	58 34	0
Taree	b	74 47	0
T'nt'rfield	c	67 51	0·37
Wagga	c	63 36	0
Walcha	b	68 30	0
Walgett	b	70 53	0
Werrah	b	67 40	0
W'ntw'rth	g	71 51	0
Wilcannia	[illegible]	— —	0
Wil'ng'ng	b	71 43	—
Young	g	74 44	0·03

Barometers on E. Coast — fallen about 0·10

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; l, fog; g, gloomy; h, hazy, m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'n gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; rn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In north parts fine, with easterly winds and calm: in south heavy showers, with rather strong south to west winds, and rough sea. Rainfall: Albany, 1·31; Perth, 0·69; Esperance Bay, 0·52; Ashburton, 0·07; and Geraldton, 0·05. Extremes of barometers and temperature: Geraldton, 30·11; Albany, 29·70; Ashburton and Cossack, 70°; and Esperance Bay, 46°.

South Australia.—Generally fine, but more or less clouded; gloomy, and raining at a few stations on and near the coast; winds are light from N. to W., but strong in places; barometers have fallen, and the sea is moderate, but rough at Cape Borda. Light rain has fallen south of Wilson; heaviest at Crafers, 0·75 inch; at Port Pirie 0·62, Clare 0·43, Cape Borda 0·35, Adelaide 0·28, Wallaroo 0·24, M'Donnell Bay 0·21, Port Augusta 0·16, and other stations with lesser quantities. Extremes of barometers and temperature: Port Augusta 29·90, Robe 29·71 and 50°, M'Donnell Bay 50°.

Victoria.—In western half showery, with rather strong north winds; in east, cloudy and threatening, with light north-east to east winds. Sea moderate; squally on coast. Rainfall: Portland, 0·32; Wilson's Promontory, 0·40; Hamilton, 0·19; Horsham, 0·16. Extremes of barometers and temperature: Lakes Entrance, 29·92; Portland, 29·70; Horsham, 56°; and Hamilton, 48°.

Tasmania.—Generally cloudy and unsettled, with light variable winds and moderate sea. Light rain fallen generally, the heaviest (0·08 inch) being at Southport and Falmouth. Extremes of barometers and temperature: Low Heads, 29·83 and 44°; Southport, 29·79; and Falmouth, 49°.

New Zealand.—Generally fine, with N.W. to S.W. winds, and calm. Barometers: Russell, 30·3; Wellington, 29·9; and Bluff, 30·0.

New South Wales.—In north parts fine, with clouds in scattered places; in south generally cloudy and gloomy. Winds are very light from various points between N.W. and S.W.; barometers have fallen and the sea is smooth. Frosty in places along the range. Light rain fallen during last 48 hours at a few scattered stations on both sides of the range, in south—the heaviest fall was at Kiandra, where 0·62 inches fell. Extremes of barometers and temperature at 9 a.m.: Clarence Heads, 30·13; Eden, 29·91; Bourke, 63°; Bathurst and Cooma, 38°. Reading of standard barometer corrected to 32° Fahr., and mean sea level at 9 a.m., 30·047. (For further particulars see map.)

Queensland.—Generally fine, with light south to S.E. winds, fallen barometer and moderate sea. No rain fallen. Extremes of barometers and temperature: Cooktown, 30·21 and 76°; Townsville, 29·83, and Brisbane, 64°.

9 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 23, fine and smooth sea, temperature 60°; Cape Otway, N., 8, threatening, moderate sea, temperature 58°; Melbourne, N.W., 13, cloudy and gloomy, temperature 59°; Cape Schanck, N., 40, threatening, smooth sea, temperature 56; Wilson's Promontory, N.W., 13, gloomy, smooth sea, temperature 59°; Lakes Entrance, N.E., 13, gloomy, temperature 60°.

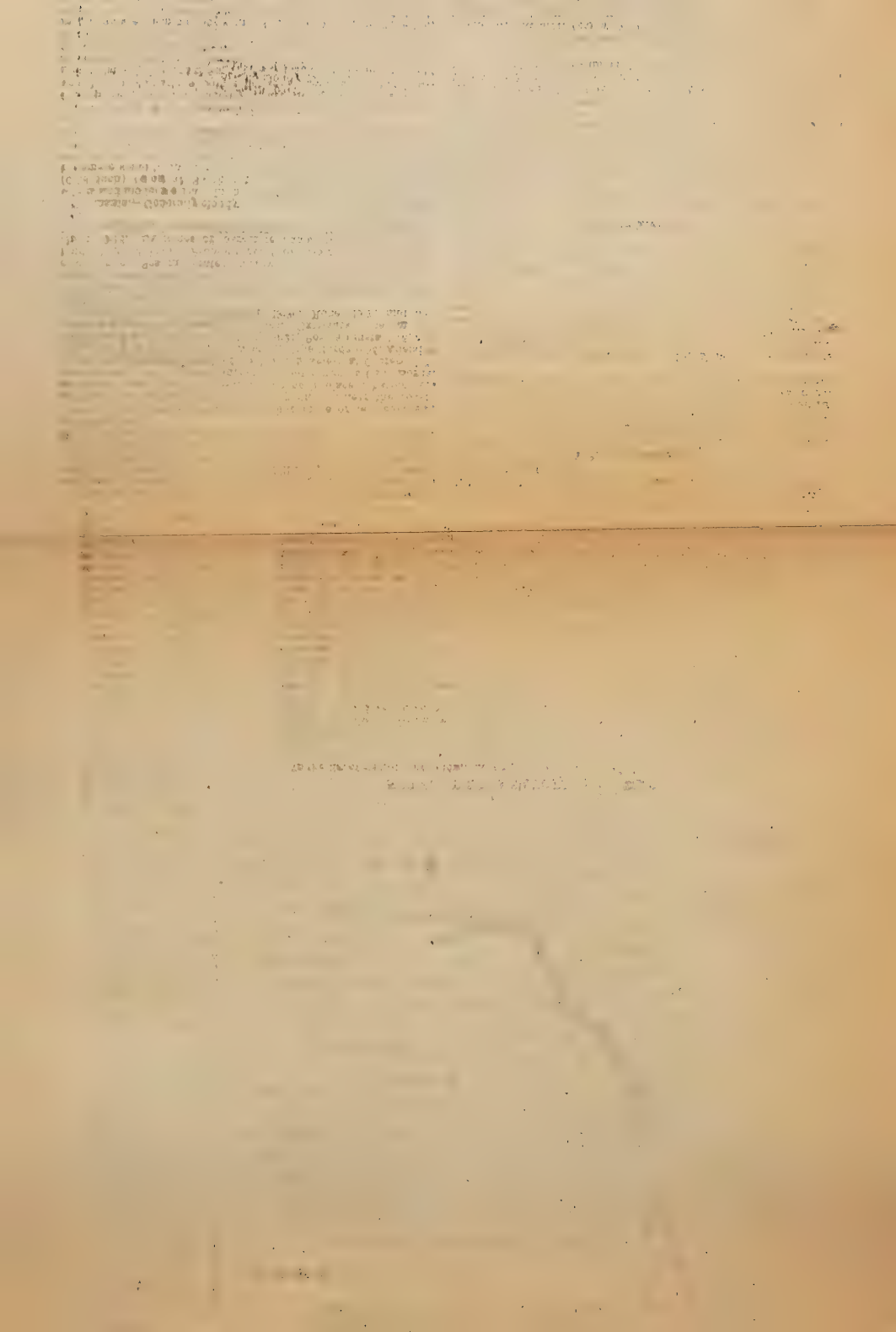
New South Wales.—Menindie, W., 28, showery, temperature 61°; Wentworth, N.W., cloudy, temperature 55°; Deniliquin, N., 14, showery, temperature 65°; Eden, N.E., 14, fine, smooth sea, temperature 56°; Moruya, S.E., 14, fine, smooth sea, temperature 61°; Cape St. George, W., 28, fine, smooth sea, temperature 70°; Sydney, E., 12, fine, but cloudy, smooth sea, temperature 65°; Port Macquarie, N.E., 28, fine, but cloudy, smooth sea, temperature 60°; Clarence River, calm, raining, smooth sea, temperature 68°; Walgett, N.E., fine and warm, temperature 75°; Dubbo, calm, fine, temperature 65°; Goulburn, N.W., 14, fine, temperature 58°.

STATE OF RIVERS.

Barwon, 36 feet 6 inches above summer level; Brewarrina, 32 feet above summer level; Goodooga, 7 feet 4 inches above summer level; Gundagai, 8 feet 6 inches above summer level; Louth, 35 feet 11 inches above summer level; Nando, over banks; Tilpa, 37 feet 9 inches above summer level. Murrumbidgee: At Wagga, 11 feet 3 inches above summer level; at Hay, 8 feet 10 inches above summer level; at Balranald, 10 feet 3 inches above summer level. Murray: At Albury, [illegible] above summer level; at Euston, 8 feet 4 inches above summer level. Darling: At Wentworth, 11 feet 6 inches above summer level; at Pooncairie, 21 feet 4 inches above summer level; at Menindie, 24 feet 3 inches above summer level; at Wilcannia, 32 feet 8 inches above summer level; at Bourke, 37 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR AUGUST 31.

Sun rises at 6.21, sets at 5.40; Moon, 7.33 a.m., 7.21 p.m.; Mercury, 5.29 a.m., 4.15 p.m.; Venus, 5.15 a.m., 3.14 p.m.; Mars, 8.58 a.m., 10.17 p.m.; Jupiter, 7.51 a.m., 8.5 p.m.; Saturn, 3.43 a.m., 1.42 p.m. Full Moon, 15th; New Moon, 29th.
High water at Port Denison, August 31: 9.25 a.m., 9.46 p.m.

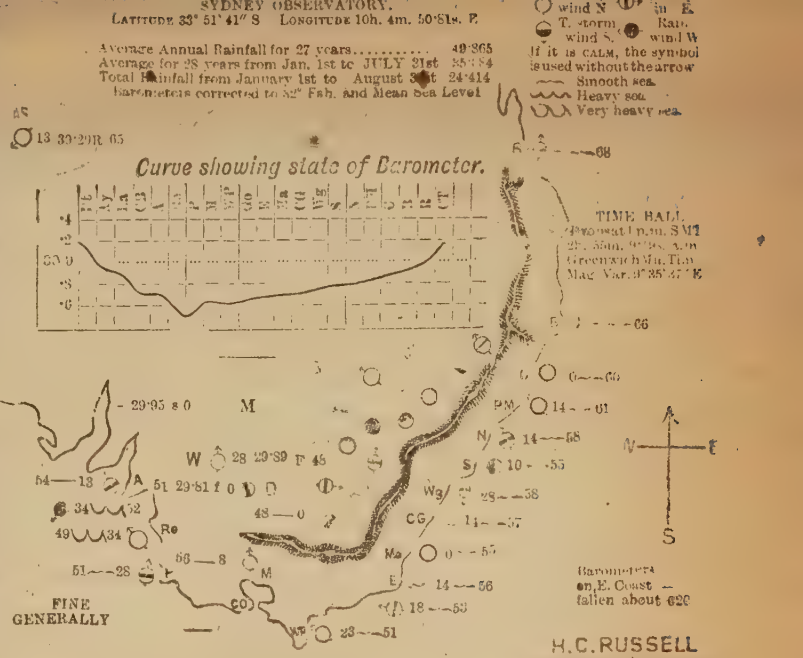


SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·365
Average for 28 years from Jan. 1st to JULY 21st 25·184
Total Rainfall from January 1st to August 31st 24·414
Barometers corrected to 32° Fah. and Mean Sea Level

Albury	u	66	43	0·35
Armidale	b	53	46	0·07
Balranald	b	68	27	0
Bathurst	r	65	37	0·22
Bend'm'r	g	60	35	0·35
Bodalla ..	b	71	42	0·15
Bourke ..	—	—	—	—
Bundarra	c	65	48	0·37
C'md'n H	b	71	54	0
C. St. Geo	b	72	65	0
Carcoar ..	h	57	45	0·22
Casino ..	b	78	55	0·42
Cassilis ..	t	65	45	0·43
Clarence	b	76	36	0·28
C'nd'b'lin	b	71	34	0
Cooma ..	b	66	33	0·04
Coonab'n	b	74	50	0·06
Cowra ..	b	71	52	0
Deniliq'n	o	74	36	0
Dubbo ..	g	76	46	0·86
Eden	b	57	47	0·10
Euston ..	n	62	35	0
Forbes ..	b	—	49	0
Gl'n Inn's	r	53	41	0·65
Goulburn	b	64	38	0
Gr.fton ..	b	76	54	0·21
Gulgong	c	69	42	0·52
Gunned'h	h	66	56	0·34
Hay	g	71	41	0
Inverell ..	f	66	35	0·83
Kiandra ..	c	51	31	0·29
Lismore ..	r	78	57	0·25
Maitland	b	69	45	0·20
Marsdens	b	71	49	0·01
Menindie	b	66	49	0
Molong ..	c	52	42	0·23
M'r'ng'r'll	b	75	48	0·04
Moree ..	f	66	51	0·30
Moruya ..	b	63	46	0·12
Moss Vale	b	60	46	0·03
Mt. Hope	b	69	50	0
M. Vict'ria	r	60	42	0·48
Mudgee ..	t	77	40	1·06
M'r'm'bh'	b	68	45	0·05
M'r'r'ndi	r	64	50	0·43
Mus'br'k	r	74	44	0·43
Narrabri	b	70	46	0·35
Newcastle	g	72	55	0·10
Orange ..	r	59	40	0·75
Picton ..	r	66	40	0·18
P. M'q'rie	b	71	52	0
P. St'ph'n	r	70	48	0·43
Q'nbeyan	b	59	42	0
Quirindi	b	73	47	0
Singleton	r	59	41	0
SYDNEY ..	t	68	51	0·20
Tamw'rth	b	70	45	0·17
Taralga ..	b	65	40	0
Taree	b	66	54	0
Tent'rfield	c	60	51	0·75
Wagga ..	f	71	39	0·02
Walcha ..	g	63	37	0·03
Walgett ..	b	75	56	0·14
Warrah ..	b	69	50	0·34
W'ntw'rth	b	66	42	0·01
Wilcannia	b	—	—	0
W'll'ng'ng	g	75	56	0·01
Young ..	c	76	45	0·06



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, R'ff, gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed at the vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with hair, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide.; Re, Keke; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go. Gabo; L, Eden. Ma, Moruya. G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Cloudy on west coast; showery in south parts, with fresh N.W. winds and smooth sea; rough sea off Esperance Bay. Rainfall: Esperance Bay, 0·50; Albany, 0·55; Perth, 0·49; and Geraldton, 0·12. Extremes of barometers and temperature: Geraldton, 30·25 and 61°; Esperance Bay, 29·95 and 44°.

South Australia.—Generally more or less clouded and unsettled; fine between Quorn and Alice Springs; squally and showery on and near the coast. Winds are rather strong from N.W. to W., barometers have fallen, and the sea is rough. Light rain has fallen on the coast; heaviest at Port Lincoln, 0·45 inch; at Cape Borda, 0·29; Streaky Bay, 0·27; and several with lesser quantities. Extremes of barometers and temperature: On coast Eucla, 29·96 and 57°; M'Donnell Bay, 29·51 and 49°. In Northern Territory—Daly Waters, 30·00 and 79°; Port Darwin, 29·90 and 82°.

Victoria.—Generally fine, with light northerly winds, fallen barometers, and moderate sea. Squally on the coast. Rain fallen generally, heaviest at Wilson's Promontory, 0·31 inch; at Horsham, 0·28; the remainder are below 0·20 inch. Extremes of barometers and temperature: Ballrat, 29·72; Portland, 30·53; Horsham, 55°; and Hamilton, 47°.

Tasmania.—Generally fine, with variable winds on north coast, and fresh northerly along east coast. Sea moderate. Foggy at Low Heads. Light rain fallen generally, heaviest on north coast, from 14 to 41 points. Extremes of barometers and temperature: Low Heads, 29·63; Falmouth, 29·54; Hobart, 50°; and Southport, 53°.

New Zealand.—On west coast strong S.W. wind, with rough sea, and passing showers of rain. On east coast fine, with westerly winds. Barometers: Russell, 30·0; Wellington and Bluff, 29·7°.

Queensland.—In the north parts fine, with S.E. winds; in south cloudy and dull, with variable winds; sea moderate. Rainfall: Brisbane, 0·54; Cape Morton, 0.22. Extremes of barometers and temperature: Cooktown, 30·19 and 76°; Townsville, 29·75, and Cape Moreton, 64°.

New South Wales.—Generally unsettled, with light N.W. to W. winds, falling barometers, mild temperature, and smooth sea. In extreme north and southern parts fine, with clouds in places. In the coast and mountain districts, immediately north and west of Sydney, passing showers, accompanied by heavy thunderstorms. Light rain has fallen in the eastern division generally; heaviest in the districts around Dubbo, Mudgee, and Orange, and on the range in extreme north, at which places it was still raining at 9 a.m. Extremes of barometers and temperature: Clarence, 29·91; Eden and Gabo, 29·67; Lismore, 65°; and Cooma, 41°. Reading of standard barometer corrected to 32° Fahr., and mean sea level at 9 a.m., 29·797. Extra Stations: Hill End, heavy thunderstorm at 8.30 a.m.; rainfall, 0·19: Brewarrina, max. 75°, min. 44°; rain, 0·02, and fine. (For further particulars see map.)

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 48, squally with hail, smooth sea, temperature 54°; Cape Otway, N.W., 56, gale increasing, showery, rough sea, temperature 49°: Melbourne, N.N.W., 58, cloudy and gloomy, temperature 59°; Cape Schanck, W.N.N., 34, light rain, rough sea, temperature 55°; Wilson's Promontory, N.W., 8, squally, smooth sea, temperature 63°; Lakes Entrance, N.E., 13, fine, temperature 60°.

New South Wales.—Menindie, W., fine, temperature 61°; Wentworth, W., 28, fine, temperature 56°; Deniliquin, N., fine, temperature 64°; Eden, N.E., 14, fine, smooth sea, temperature 57°; Moruya, S.E., 18, fine, smooth sea, temperature 61°; Cape St. George, N., 14, fine, smooth sea, temperature 63°; Sydney, N.E., 6, fine, but cloudy, smooth sea, temperature 67°; Newcastle, N.W., 14, dull, smooth sea, temperature 67°; Port Macquarie, S.E., 28, sultry, smooth sea, temperature 71°; Clarence River, N.W., 14, fine, smooth sea, cloudy, temperature 76°; Walgett, N.W., 28, cloudy, temperature 69°; Dubbo, S., 14, fine, temperature 65°; Goulburn, N.W., 14, fine, temperature 58°.

STATE OF RIVERS.

Barwon, 36 feet 3 inches above summer level; Brewarrina, 31 feet 6 inches above summer level; Goodooga, 8 feet 4 inches above summer level; Gundagai, 7 feet 8 inches above summer level; Louth, 35 feet 11 inches above summer level; Mogil Mogil, over banks; Mungindi, 28 feet 2 inches above summer level; Namoi, over banks; Tilpa, 37 feet 10 inches above summer level. Murrumbidgee: At Wagga, 11 feet 3 inches above summer level; at Hay, 9 feet 1 inch above summer level; at Balranald, 10 feet 4 inches above summer level. Murray: At Albury, 6 feet above summer level; at Euston, 8 feet 7 inches above summer level. Darling: At Wentworth, 11 feet 8 inches above summer level; at Pooncarie, 21 feet 5 inches above summer level at Menindie, 24 feet 4 inches above summer level; at Wilcannia, 32 feet 10 inches above summer level; at Bourke, 37 feet 6 inches above summer level.

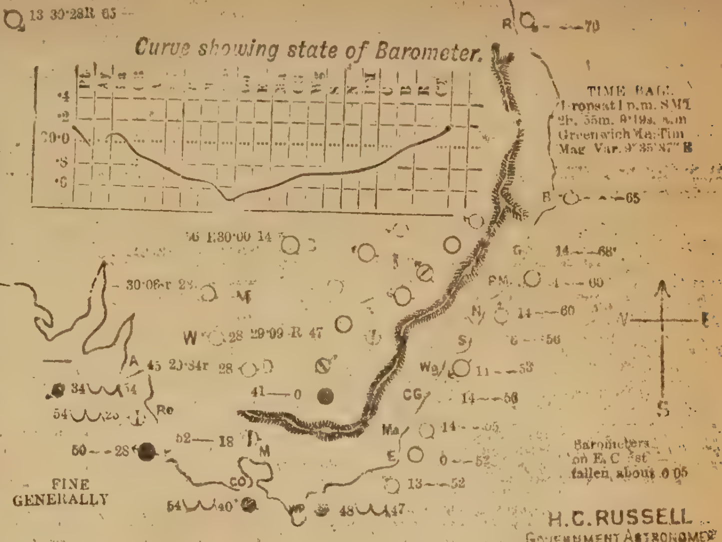
ASTRONOMICAL MEMORANDA FOR SEPTEMBER 1.

Sun rises at 6.20, sets at 5.40; Moon, 8.15 a.m., 8.30 p.m.; Mercury, 5.29 a.m., 4.13 p.m.; Venus, 5.16 a.m., 3.46 p.m.; Mars, 8.55 a.m., 10.17 p.m.; Jupiter, 7.17 a.m., 8.1 p.m.; Saturn, 3.10 a.m., 1.38 p.m. Full Moon, 1th; New Moon, 27th. High water at Fort Denison, September 1: 10.7 a.m., 10.27 p.m.

Armidale	b	47	45	0
Balranald	b	72	30	0
Bathurst	b	62	39	0·06
Bend'm't	c	58	41	0
Bodalla	b	75	38	0
Bourke	b	76	49	0
Bundarra	b	72	33	0
C'md'n H	b	69	44	0·30
C.St.Geo	b	68	66	0
Carcoar	g	58	44	0·12
Casino	b	82	52	0
Cassilis	b	66	49	0
Clarence	b	72	55	0
C'nd'b'lin	b	69	32	0
Cooma	n	64	31	0·04
Coonab'n	b	74	36	0
Cowra	g	66	45	0·03
Deniliq'n	b	67	34	0·02
Dubbo	b	76	40	0
Eden	b	60	54	0
Euston	b	70	39	0
Forbes	b	—	46	0
Gl'n Inn's	b	60	42	0·03
Goulburn	b	64	36	0
Grafton	b	85	55	0
Gulgong	b	65	40	0·15
Gunned'h	b	74	40	0
Hay	b	67	35	0
Inverell	b	68	35	0
Kiandra	s	58	28	0
Lismore	b	84	57	0
Maitland	b	65	49	0·47
Marsdens	b	63	48	0·03
Menindie	b	67	48	0
Molong	b	60	40	0·06
M'r'ng'r'li	b	77	45	0·03
Moree	b	73	44	0
Moruya	b	67	44	0
Moss Vale	b	60	41	0
Mt. Hope	b	62	49	0
M. Vict'ria	b	58	35	0
Mudgee	b	69	38	0·08
M'rr'm'bh'	c	68	32	0·02
M'rr'r'ndi	b	67	49	0
Mu'l'br'k	r	74	41	0·21
Narrabri	g	73	44	0
Newcastle	b	69	50	0·17
Orange	g	58	37	0·08
Picton	b	60	47	0·02
P. M'q'rie	b	71	47	0
P. St'ph'n	b	67	44	0·47
Q'nbeyan	b	60	44	0·03
Quirindi	c	75	39	0
Singleton	b	60	56	0·08
Sydney	b	69	51	0
Ta'nw'rth	g	71	47	0·03
Taralga	b	60	35	0
Taree	b	71	55	0·05
T'nt'rfield	b	69	46	0
Wagga	c	66	38	0·06
Walcha	g	64	36	0·06
Walgett	b	71	49	0
Warrah	g	70	47	0
W'ntw'rth	b	68	42	0·01
Wilcannia	b	—	—	0

LATITUDE 33° 51' 41" S. LONGITUDE 10h. 4m. ...

Average Annual Rainfall for 27 years........ 49·865
Average for 28 years from Jan. 1st to August 31st 37·962
Total Rainfall from January 1st to SEPTBR 1st 24·416
Barometers corrected to 32° Fah. and Mean Sea Level



wind ... if it is CALM, the symbol is used without the arrow
Smooth sea.
Heavy sea.
Very heavy sea.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W. I. gives the state of the weather at 9 a.m., b standing for blue sky, c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour. Next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland, M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

... Albany, 29·97, and Esperance Bay, 44°.

South Australia.—Generally more or less cloudy, with strong N.W. to S.W. winds, risen barometers, and rough sea; showery in places on and near the coast. Light rain fallen south of Quorn, heaviest over Mount Lofty Ranges, and on the coast. M'Donnell Bay, 0·36; Streaky Bay, 0·33; Port Lincoln, 0·23. Extremes of barometers and temperature: Eucla, 30·11 and 59°; Robe, 29·75; and M'Donnell Bay, 50°.

Victoria.—On the coast showery, with strong squally W.N.W. wind and rough sea. At Cape Otway foggy, and lightning all night to W. and N.W. At Wilson's Promontory fierce squalls and severe thunderstorm during the night. Inland overcast, with showers in places and fresh westerly winds. Light rain fallen generally, heaviest on S.W. coast, where from 0·41 to 0·67 inch fell. Extremes of barometers and temperature: Horsham, 29·78 and 53°; Omeo, 29·65 and 43°.

Tasmania.—Generally unsettled and threatening, with rather strong west to north winds, low barometers, and moderate sea. Rough sea off Circular Heads, showery at Southport and snowing heavily on mountains round Hobart. Light rain fallen generally. Extremes of barometers and temperature: Circular Heads, 29·14; Hobart, 29·23 and 44°; Low Heads, 48°.

New Zealand.—Showery in extreme north from N.W.; calm and gloomy at Wellington; fine with N.E. wind at Bluff. Barometers generally, 29·7.

New South Wales.—Generally fine and clear, with light N.W. to S.W. winds, rising barometers and smooth sea. Cloudy along the western slope of the ranges; showery at Albury; snowing at Kiandra, one inch already fallen; and frosty at Cooma. Light rain has fallen in the eastern division generally, principally in south parts, but heaviest at the mouth of the Hunter River, where nearly half-inch fell. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·03; Eden, 29·59; Clarence Heads, 68°, and Cooma, 32°. Reading of standard barometers at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m., 29·754. ... Station ... yesterday: max. 73°, min. 37°, and fine. (For further particulars see map.)

Queensland.—Generally fine, with light variable winds and calm and moderate to smooth sea. Rainfall: Brisbane, 0·28.

... temperature 55°; Cape Otway, N.W., 48, passing showers, rough sea, temperature 56°; Melbourne, W.N.W., 18, cloudy and squally, temperature 55°; Cape Schanck, W.N.W., 18, misty, moderate sea, temperature 56°; Wilson's Promontory, W., 48, showery, with fierce squalls, rough sea, temperature 17°; Lakes Entrance, W.N.W., 23, squally, cloudy, temperature 5.°.

New South Wales.—Menindie, W., 14, fine, temperature 60°; Wentworth, S.W., fine, temperature 57°; Deniliquin, N., 23, dull, temperature 62°; Eden, W., 28, fine, smooth sea, temperature 65°; Moruya, W.S.W., 42, fine, smooth sea, temperature 64°; Cape St. George, W., 4., fine, smooth sea, temperature 61°; Sydney, W.N.W., 20, fine, smooth sea, temperature 62°; Newcastle, W., 28, fine, smooth sea, temperature 67°; Port Macquarie, W.S.W., 28, fine, smooth sea, temperature 70°; Clarence River, W., 28, fine, smooth sea, temperature 72°; Walgett, W., 28, fine, temperature 64°; Dubbo, W., 28, threatening, temperature 61°; Forbes, W., 28, threatening; Goulburn, N.W., light showers, temperature 5.°.

STATE OF RIVERS.

Barwon, 36 feet 6 inches above summer level; Brewarrina, 31 feet 8 inches above summer level; Goodooga, 9 feet above summer level; Gundagai, 7 feet above summer level; Bourke, 35 feet .. inches above summer level; Mogil Mogil, over banks; Mungindi, 28 feet 2 inches above summer level; Namoi, over banks; Tilpa, 38 feet above summer level. Murrumbidgee: At Wagga, 11 feet 2 inches above summer level; at Hay, 9 feet 6 inches above summer level; at Balranald, 1 feet above summer level. Murray: At Albury, 6 feet above summer level; at Euston, .. feet 9 inches above summer level. Darling: At Wentworth, 11 feet 10 inches above summer level; at Pooncarie, 21 feet 5 inches above summer level; at Menindie, 2. .. 4 inches above summer level; at Wilcannia, 32 feet .. inches above summer level; at Bourke, 37 feet .. inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 2.

Sun rises at 6.1.., sets at 5.1..; Moon, 8.5.. a.m., 9.35 p.m.; Mercury, 5.59 a.m., 4.1.. p.m.; Venus, 5.16 a.m., 3.18 p.m.; Mars, .. 3 a.m., 10.16 p.m.; Jupiter, 7.14 a.m., 7.58 p.m.; Saturn, 3.36 a.m., 1.35 p.m. Full Moon, 1.th; New Moon, 2.th.

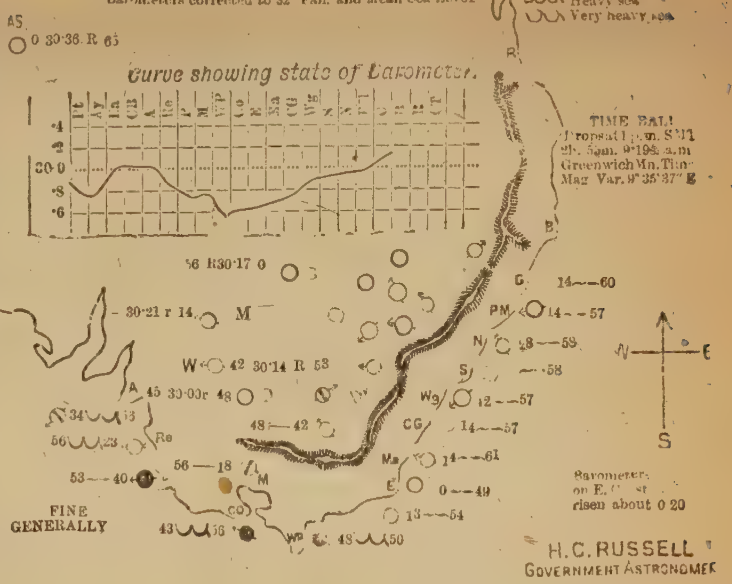
High water at Fort Denison, September 2: 10.47 a.m., 11.7 p.m.

LATITUDE 33° 51' 41" S LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years......... 49·365
Average for 28 years from Jan. 1st to August 31st 17·12
Total Rainfall from January 1st to SEPTBR 2nd 24·416
Barometers corrected to 32° Fah. and Mean Sea Level

T. storm. Rain. wind S. wind W.
If it is CALM, the symbol is used without the arrow
Smooth sea.
Heavy sea.
Very heavy sea.

Albury	..			
Armidale	b	54	40	0
Balranald	c	64	40	0
Bathurst	b	52	36	0
Bend'm'r	b	55	41	0
Bodalla ..	b	68	36	0
Bourke	b	74	45	0
Br'w'rrina	b	65	34	0
Bundarra	b	65	39	0
C'md'n H	b	70	46	0
C.St.Geo	b	66	47	0
Carcoar	b	52	46	0·07
Casino ..	b	74	45	0
Ca[illegible]lis	b	59	44	0
Clarence	b	77	52	0
C'nd'b'lin	b	59	31	0
Cooma ..	g	60	36	0
Coonab'n	b	64	36	0
Cowra ..	o	64	42	0·03
Deniliq'n	b	67	39	0·08
Dubbo .	b	62	32	0
Eden	b	64	49	0
Euston ..	b	65	42	0
Forbes ..	b	—	47	0
Gl'n Inn's	b	59	38	0
Goulburn	b	51	38	0·10
Gra'ton..	b	76	46	0
Gulgong	b	59	46	0
Gunned'h	b	73	40	0
Hay ..	b	62	35	0·03
Inverell	b	68	35	0
Kiandra	s	38	30	0
Lismore	b	75	48	0
Maitland	b	65	48	0
M[illegible]	b	60	44	0
M[illegible]	b	67	51	0
Mo[illegible]	b	57	38	0
M'r'ng'r'll	b	63	39	0·01
Moree	b	70	40	0
Moruya..	b	66	47	0
Moss Vale	b	51	43	0
Mt. Hope	b	58	47	0
M.Vict'ria	b	47	37	0
Mudgee..	b	63	42	0
M'rr'm'bh	c	68	52	0·05
M'rr'ndi	b	68	47	0
Mus'br'k	b	70	40	0
Narrabri	b	62	44	0
Newcastle	b	63	48	0
Orange ..	b	50	34	0·05
Picton ..	c	69	47	0
P. M'q'rie	b	71	41	0
P. St'ph'n	b	66	46	0
Q'nbeyan	c	62	43	0
Quirindi	b	63	42	0
Singleton	b	58	54	0
SYDNEY ..	b	67	50	0
Ta'nw'rth	b	62	39	0
Taralga .	b	59	41	0·21
Taree	b	71	48	0
T'nt'rfield	b	59	50	0
Wagga ..	c	55	40	0·07
Walcha .	b	55	34	0
Walgett..	b	66	46	0
Wa[illegible]ah	b	70	45	0
W'ntw'rth	b	65	45	0
W'll'ng'ng	b	69	53	0
Young ..	b	64	38	0·11



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m.; b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and threatening with light N.E. to N.W. winds and moderate sea. Rainfall: 0·67 inch at Cam[illegible]rvon. Extremes of barometers and temperature: Ashburton 29·90 and 72°; Albany, 29·73 and Esperance Bay, 47°.

South Australia.—Generally cloudy and unsettled south of Burra, with rather strong N.W. to W. winds, risen barometers, and rough sea. Squally and warm on the coast. Light rain recorded on and near the coast; greatest over Mount Lofty ranges, and at Crafers, where 0·68 inch fell; at Cape Borda, 0·47; Robe, 0·19. Extremes of barometers and temperature: On coast—Port Augusta, 30·18; M'Donnell Bay, 29·70 and 55°; Eucla, 63°; in Northern Territory—Daly Waters, 30·06 and 79°; Port Darwin, 29·91 and 84°.

Victoria.—Showery and squally on coast, with very strong N.W. to W. winds and high sea. Fierce squalls at Wilson's Promontory and Cape Otway; at the former place it was lightning all night; inland cloudy and gloomy, with strong N.W. wind. Light rain fallen generally; from 35 to 68 points on the coast and from 2 to 21 points inland. Extremes of barometers and temperature: Horsham, 29·89 and 54°; Wilson's Promontory, 29·52; and Hamilton, 47°.

Tasmania.—Showery throughout, with strong, squally W. to N.W. winds, very low barometers, and moderate sea. Heavy showers in extreme N. and S. parts. Rain fallen generally, from 28 to 53 points having been recorded. Extremes of barometers and temperature: Low Heads, 29·36; Hobart, 29·14 and 47°; Falmouth, 54°.

New Zealand.—Generally gloomy, with fresh N.E. to N.W. winds and low barometers. On west coast strong W. wind and rough sea. Barometers: Russell, 29·4; Wellington, 29·1; and Bluff, 29·2.

New South Wales.—Generally fine and clear, with fresh N.W. to S.W. winds, risen barometers, fallen temperature, and moderate sea; cloudy at a few places in south-west. Light rain has fallen at a few stations in south parts on both sides of the range; heaviest at Taralga, where 0·21 inch fell. During the night 10 inches of snow fell at Kiandra, and at 9 a.m. it was still snowing. Rivers are rising slowly. Extremes of barometers and temperature at 9 a.m.: Men'n [illegible], 30·2; Gabo Island, 29·65; Moruya, 61°; and Kiandra, 34°. Reading of standard barometer, corrected to 32° Fahr. and mean sea level, at 9 a.m. 29·944. (For further particulars see map.)

Queensland.—Generally fine and clear, with S.E. winds.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 56, passing showers, smooth sea, temperature 56°; Melbourne, W.N.W., 23, cloudy and squally, temperature 60°; Cape Schanck, W., 23, gloomy and misty, rough sea, temperature 55°; Lakes Entrance, W., 23, cloudy and squally, temperature 6[illegible]°.

New South Wales.—Wentworth, N.W., 28, fine, temperature 56°; Deniliquin, N.W., dull, temperature 63°; Eden, W., 42, fine, smooth sea, temperature 6[illegible]°; Moruya, W.N.W., 42, squally, smooth sea, temperature 69°; Cape St. George, W., 42, fine, smooth sea, temperature 66°; Sydney, W.N.W., 20, fine and squally, smooth sea, temperature 66°; Newcastle, N.W., 28, fine, smooth sea, temperature 65°; Port Macquarie, W., 42, fine, smooth sea, temperature 70°; Clarence River, W., 14, fine, smooth sea, temperature 71°; Walgett, N.W., fine, temperature [illegible]4°; Dubbo, S.W., 1[illegible], fine, temperature 60°; Goulburn, 28, N.W., dull, temperature 56°.

STATE OF RIVERS.

Barwon, 37 feet 7 inches above summer level; Brewarrina, 31 feet 4 inches above summer level; Goondooga, 10 feet above summer level; Gundagai, 6 feet 8 inches above summer level; Louth, 36 feet above summer level; Mogil Mogil, over banks; Mungindi, 28 feet 2 inches above summer level; Namoi, over banks; Tilpa 34 feet 2 inches above summer level. Murrumbidgee: At Wagga, 10 feet 11 inches above summer level; at Hay, 9 feet 10 inches above summer level; at Balranald, 11 feet 2 inches above summer level. Murray: At Albury, 5 feet 11 inches above summer level; at Euston, 9 feet above summer level. Darling: At Wentworth, 12 feet above summer level; at Pooncarie, 21 feet 5 inches above summer level; at Menindie, 24 feet 3 inches above summer level; at Wilcannia, 32 feet 11 inches above summer level; at Bourke, 37 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 3.

Sun rises at 6.17, sets a [illegible]; Moon, 9.36 a.m., 10.33 p.m.; Mercury, 5.40 a.m., 4.1[illegible] p.m.; Venus, 5.16 a.m., 3.0 p.m.; Mars, [illegible].51 a.m., 10.15 p.m.; Jupiter, 7.[illegible] a.m., 7.[illegible] p.m.; Saturn, 3.3 a.m., [illegible]2 p.m. Full Moon, 1 th; New Moon, 2 th.

High water at Fort Denison, September 3: 11.28 a.m., 11.49 p.m.

METEOROLOGICAL ABSTRACT—AUGUST, 1886, with results for the same month during the preceding 27 years.

—	Barometer at 32° Fah. and mn. sealev'l.	Temperature in Shade. Mean Max.	Mean Min.	Mean.	Rainfall. Amount Inches.	No. of days.
1886: August ...	29·937	62.7	49·0	55·9	2·168	14
Average for 28 years ...	30·095	62·8	47·4	55·1	2·818	11
Monthly Extremes: Highest ... Year ...	30·287 1860	65·9 '75 & '80	50·8 1864	57·4 1880	10·166 1879	19 1861
Lowest ... Year ...	29·937 1886	5[illegible]·2 1861	43·6 1862	52·0 1872	0·[illegible]40 1885	2 1850

Wind.—Prevailing direction, W., average prevailing direction for 28 years, W.; August, 1886, mean miles per hour 10·2.

Temperature.—Highest shade temperature, 69·3 on 1 th [illegible] 31st; highest shade temperature in any August since 1859, [illegible] on the 31st, 1884. Lowest shade temperature 43·8 on the [illegible]; lowest shade temperature in any August since 1859, 36·8 on the 3rd, 1872.

Rainfall.—Greatest fall in one day 0·356 on the 20th; greatest fall in one day in any August since 1859, 5·325 on the 2nd, 18[illegible]0.

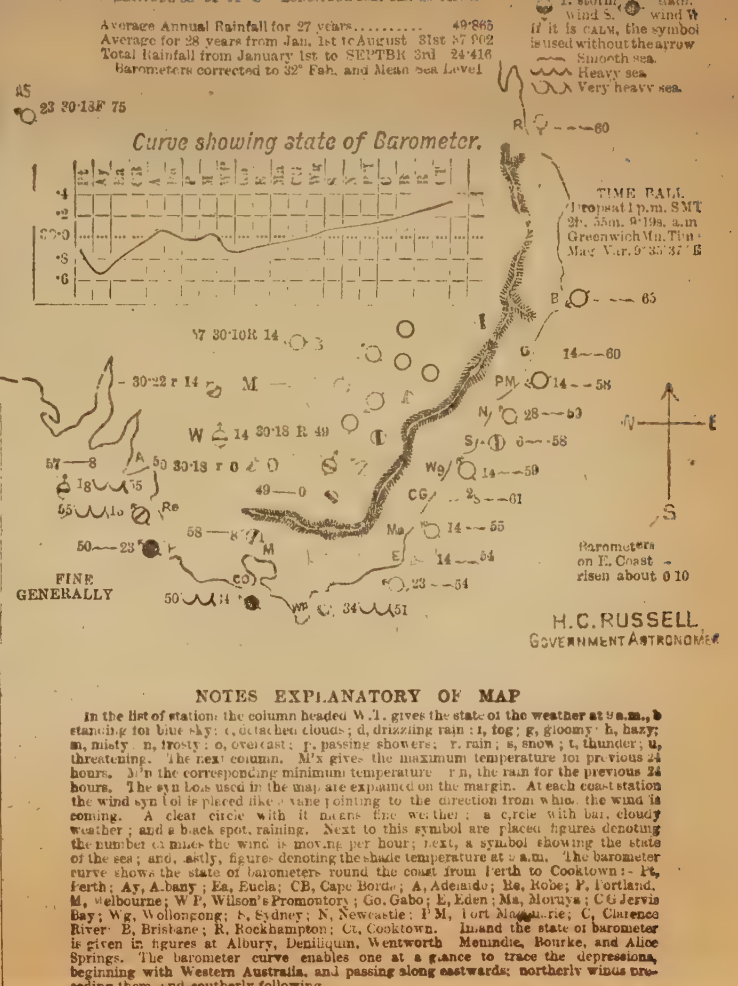
H. C. RUSSELL, Government Astronomer.

Sydney Observatory, September 2, 1886.

Armidale	u	46	40	0
Balranald	g	64	29	0
Bathurst	c	56	41	0
Bend'm'r	c	57	37	0
Bodalla	b	73	38	0
Bourke	b	79	50	0
Br'w'rrina	b	71	37	0
Bundarra	b	63	30	0
C'md'n H	b	74	53	0
C. St. Geo	b	69	49	0
Carcoar	g	54	46	0
Casino	b	77	44	0
Cassilis	g	60	46	0
Clarence	b	74	54	0
C'nd'b'lin	g	64	31	0
Cooma	c	59	37	0
Coonab'n	n	63	33	0
Cowra	b	66	44	0
Deniliq'n	g	65	40	0
Dubbo	b	69	35	0
Eden	b	66	49	0
Euston	b	68	36	0
Forbes	b	—	44	0
Gl'n Inn's	o	57	40	0
Goulburn	g	65	41	0
Grafton	b	77	50	0
Gulgong	b	59	38	0
Gunned'h	c	66	40	0
Hay	b	65	43	0
Inverell	b	67	32	0
Kiandra	r	39	32	1·98
Lismore	b	78	49	0
Maitland	b	66	52	0
Marsdens	b	63	46	0
Menindie	g	68	51	0
Molong	b	59	40	0
M'r'ng'r'll	b	64	43	0
Moree	b	72	41	0
Moruya	b	72	45	0
Moss Vale	u	55	46	0
Mt. Hope	g	66	50	0
M. Vict'ria	c	51	40	0
Mudgee	g	67	37	0
M'rr'm'bh	b	60	44	0·02
M'rr'ndi	b	59	55	0
Mus'br'k	b	62	41	0
Narrabri	b	69	46	0
Newcastle	b	67	53	0
Orange	b	54	38	0
Picton	g	64	52	0
P. M'q'rie	b	73	41	0
P. St'ph'n	g	66	47	0
Q'nbeyan	c	54	46	0
Quirindi	b	70	41	0
Singleton	b	69	56	0
Sydney	g	67	51	0
Tam'w'rth	b	62	35	0
Taralga	g	58	38	0
Taree	g	72	46	0
T'nt'rfield	u	60	33	0
Wagga	c	63	43	0
Walcha	o	54	32	0
Walgett	b	65	49	0
Warrah	g	65	43	0
W'ntw'rth	o	69	44	0
W'll'ng'ng	b	68	52	0
Young	c	65	40	0·01

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to August 31st 37·902
Total Rainfall from January 1st to SEPTBR 3rd 24·416
Barometers corrected to 32° Fah. and Mean Sea Level

Wind's. wind W
If it is CALM, the symbol is used without the arrow
Smooth sea.
Heavy sea
Very heavy sea.



NOTES EXPLANATORY OF MAP

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland. M, Melbourne; W P, Wilson's Promontory; Go. Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In north parts fine, withe asterly winds and calm; in south cloudy, with N.W. winds; showery and rough sea at Geraldton. Rainfall: Albany, 0·23; Perth, 0·28; and 0·07 at Carnarvon. Extremes of barometers and temperature: Ashburton, 30·05; Carnarvon, 72°; Albany, 29·60; and Esperance Bay, 55°.

South Australia.—South of Peake cloudy and threatening rain, with light northerly winds, steady barometers, and rough sea; light rain at Peake; fine and calm in north parts. Rainfall: P'Donnell Bay, 0·07; and Robe, 0·06. Extremes of barometers and temperature: On coast—Port Augusta, 0·06; Eucla, 29·79 and 70°; M'Donnell Bay, 51°. In Northern Territory—Daly Waters, 30·09 and 81°; Port Darwin, 29·93 and 82°.

Victoria.—Along the coast, passing showers of light rain with strong squally N.W. wind and rough sea. Inland fine, but windy and warm, with fresh N.W. to W. winds. Rainfall: Wilson's Promontory, 1·01; Portland, 0·13; and Hamilton, 0·06. Extremes of barometers and temperature: Horsham 30·03; Sandhurst 59°; Wilson's Promontory, 52°; and Hamilton, 47°.

Tasmania.—Generally fine, but cloudy, with fresh N. to W. winds and moderate sea. Rain fallen generally, varying in quantity from 0·05 at Fahmouth to 0·39 at Hobart. Extremes of barometers and temperature: Circular Head, 29·91; Hobart, 30·07; Southport, 53°; and Fahmouth, 48°.

New Zealand.—Generally fine; gloomy at Wellington, and 0·25 of rain fallen. On N.W. coast and at Gisborne strong W. winds. Rough sea on west coast. Barometers: Russell, 29·96; Wellington, 29·2; and Bluff, 29·1.

New South Wales.—Generally fine and warm with light N.W. to S.W. winds, risen barometers and smooth sea. Cloudy and settled in parts, especially in S. and S.W. Frosty at Cooma. Slight rain fallen at three stations on the western slope of the coast in south; but heavy at Kiandra, where nearly two inches fell, but was still raining at 9 a.m. Extremes of barometers and temperature: Cape St. George, 61°; Kiandra, 35°; Menindie, 72°; and Eden, 53°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level at 9 a.m.: 30·07. Extra station: Lake Cudgellico, max. 65°, min. 43°, and 30·22. For further particulars see map.

Queensland.—Generally fine, with S.E. to S.W. winds, and calm sea. Rough sea at Townsville; no rain fallen. Extremes of barometers and temperature: Cooktown, 30·21 and 84°; Townsville, 29·93; and Cape Moreton, 58°.

3 P.M. OBSERVATIONS.

Victoria.—Melbourne, N.W., 13, cloudy, temperature 61°; Cape Otway, N.W., 28, fine and misty, rough sea, temperature 58°; Portland, W.N.W., 28, fine, but cloudy, smooth sea, temperature 62°; Cape Schanck, W., 13, fine, but cloudy, smooth sea, temperature 56°; Wilson's Promontory, W.N.W., 23, cloudy and squally, rough sea, temperature 52°; Lakes Entrance, W., 23, cloudy, temperature 61°.

New South Wales.—Menindie, W., cloudy and threatening, temperature 64°; Wentworth, N.W., dull and close, temperature 56°; Deniliquin, calm, fine, temperature 60°; Eden, N.E., 14, fine, smooth sea, temperature 61°; Moruya, N.E., 14, fine, smooth sea, temperature 68°; Sydney, W.S.W., 8, fine, but cloudy smooth sea, temperature 64°; Cape St. George, W., 28, fine, smooth sea, temperature 55°. Newcastle, W., fine, smooth sea, temperature 66°; Port Macquarie, W., 14, cloudy and sultry, smooth sea, temperature 72°. Clarence River, N.E., 14, fine, smooth sea, temperature 67°; Walgett, calm, fine, temperature 70°. Dubbo, calm, cloudy, temperature 61°; Goulburn, N.W., 14, still, temperature 55°.

STATE OF RIVERS.

Barwon 37 feet 1 inch above summer level; Brewarrina, 30 feet 8 inches above summer level; Goodooga, 10 feet 9 inches above summer level; Gundabai, 1 feet 4 inches above summer level; Louth, 15 feet 1 inch above summer level; Morundah, 27 feet 10 inches above summer level; Murrumbidgee: At Wagga, 10 feet 9 inches above summer level, at Hay, 10 feet 3 inch above summer level; at Balranald, 11 feet 3 inches above summer level. Murray: At Albury, 5 feet 3 inches above summer level; at Euston, 9 feet 3 inches above summer level. Darling: At Wentworth, 12 feet 1 inch above summer level, at Menindie 21 feet 5 inches above summer level; at Wilcannia, 34 feet above summer level; at Bourke, 37 feet 2 inches above summer level.

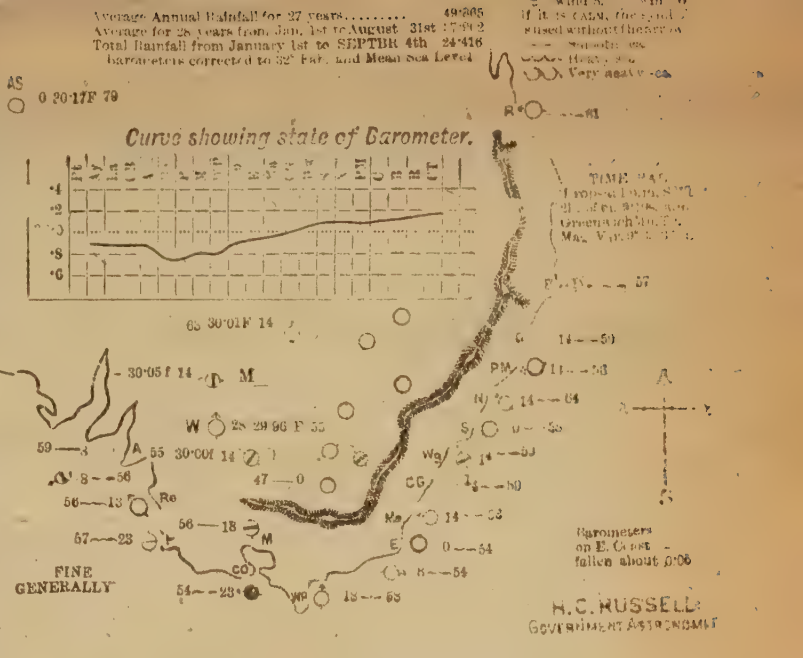
ASTRONOMICAL MEMORANDA FOR SEPTEMBER 4.

Sun rises at 6.10, sets a 5.42; Moon, 10.19 a.m., 11.39 p.m.; Mercury, 5.30 a.m., 4.47 p.m., Venus, 5.16 a.m., 3. 2 p.m.; Mars, 6.49 a.m., 10.14 p.m.; Jupiter, 7.47 a.m., 7. 2 p.m.; Saturn, 2.29 a.m., 1.2 p.m. Full Moon, 1 th; New Moon, 3 th.

High water at Fort Denison, September 4: —— a.m., 12.13 p.m.

Balranald	g	78 30	0·09
Bathurst	b	57 37	0
Bend'm'r	n	55 33	0
Bodalla ..	b	74 39	0
Bourke ..	b	80 50	0
Brk'rrina	b	77 37	0
Bundarra	b	60 37	0
C'md'n H	b	71 47	0
C. St. Geo	b	66 47	0
Carcoar	g	55 43	0
Casino ..	b	81 42	0
Cassilis .	b	59 44	0
Clarence	b	76 53	0
C'nd'b'lin	b	65 35	0
Cooma ..	c	64 36	0
Coonab'n	b	68 38	0
Cowra ..	b	68 45	0
Deniliq'n	g	70 43	0
Dubbo .	b	65 33	0
Eden	b	67 55	0
Euston ..	b	78 37	0·08
Forbes ..	b	— 44	0
Gl'n Inn'e	b	55 34	0
Goulburn	b	55 41	0
		0–68	
a.			
Grafton ..	b	82 45	0
Gulgong	b	60 39	0
Gunned'h	c	64 40	0
Hay	u	70 49	0
Inverell ..	b	68 36	0
Kiandra	c	45 33	0·62
Lismore	b	82 50	0
Maitland	b	68 51	0
Maredena	b	66 38	0
Menindie	g	69 63	0
Molong ..	b	64 38	0
M'r'ng'r'll	b	67 41	0
Moree	b	74 44	0
Moruya ..	b	72 44	0
Moss Vale	h	54 44	0
Mt. Hope	b	65 50	0
M. Vict'ria	u	53 41	0
Mudgee ..	h	67 35	0
M'r'm'bh	b	63 42	0
M'r'r'ndi	b	56 45	0
Mus'b'k	b	72 42	0
Narrabri	b	70 46	0
Newcastle	b	65 52	0
Orange ..	b	54 36	0
Picton ..	b	63 43	0
P. M'q'rie	b	72 44	0
P. St'ph'n	b	69 46	0
Q'nbeyan	g	56 46	0
Quirindi	b	63 45	0
Singleton	b	63 56	0
SYDNEY ..	h	65 49	0
Tamw'rth		— —	0
Taralga ..	b	72 38	0
Taree	b	72 45	0
Tent'rfield	b	61 41	0
Wagga ..	b	67 44	0
Walcha ..	b	54 30	0
Walgett ..	b	89 48	0
Warrah ..	b	62 45	0
W'tw'rth	b	69 48	0·17
Will'ng'g	g	67 52	0
Young ..	b	65 38	0

Average Annual Rainfall for 27 years..... 49·805
Average for 28 years from Jan. 1st to August 31st : 37·912
Total Rainfall from January 1st to SEPTBR 4th 24·416
Barometers corrected to 32° Fahr. and Mean Sea Level



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In the list of station the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky ; c, detached clouds ; d, drizzling rain ; f, fog ; g, gloomy ; h, hazy, m, misty ; n, rising ; o, overcast ; p, passing showers ; r, rain ; s, snow ; t, thunder ; u, threatening. The next column, Mx, gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature ; r in the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each station at which the wind symbol is placed, a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather ; a circle with bar, cloudy weather ; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour, next, a symbol showing the state of the sea ; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Townsville ; P, Perth ; Ay, Albany ; Ea, Eucla ; CE, Cape Borda ; A, Adelaide ; Ke, Kent ; L, Lady Julia Percy Island ; M, Melbourne ; W P, Wilson's Promontory ; Go, Gabo ; L, Eden ; Ma, Montague, Q, Queenscliff Bay ; Wg, Wollongong ; S, Sydney ; N, Newcastle ; P M, Port Macquarie ; C, Clarence River ; B, Brisbane ; R, Rockhampton ; Ct, Cooktown. Below the state of the weather is given in figures at Albury, Deniliquin, Wentworth, Menindie, Lismore, Bourke, and Hay Springs. The barometer curve enables one at a glance to trace the connection, beginning with Western Australia, and passing along eastwards ; both the winds preceding them, and southerly following.

Western Australia.—Generally overcast and threatening rain, with fresh N.W. winds, and smooth sea ; showery at Perth and Albany ; rough sea at Geraldton and Esperance Bay. Rainfall : Geraldton, 0·10 ; Perth, 0·40 ; Albany, 0·13 ; and Esperance Bay, 0·16. Extremes of barometers and temperature : Ashburton, 30·11 and 74° ; Albany, 29·57 ; and Esperance Bay, 57°.

South Australia.—Generally fine and warm, with light north to west winds, fallen barometers, and smooth sea ; cloudy in places on coast. Rainfall : Peake, 0·02 ; and Robe, 0·01. Extremes of barometers and temperature : On coast—M'Donnell Bay, 29·72 ; Robe, 56° ; Port Augusta, 29·92 ; and Eucla, 68°. In Northern Territory—Daly Waters, 30·07 and 85° ; Port Darwin, 29·91 and 84°.

Victoria.—Generally unsettled and cloudy, with fresh northerly winds, fallen barometers, and moderate sea. Passing showers from W. at Cape Otway ; strong wind in squalls between Melbourne and Wilson's Promontory. Rainfall : Wilson's Promontory, 0·16 ; Cape Otway, 0·0 ; and Portland, 0·01. Extremes of barometers and temperature : Omeo, 29·67 ; Mount Cole Observatory, 29·77 ; Horsham, 57° ; and Hamilton, 44°.

Tasmania.—Generally overcast and dull with rain. N.E. to N.W. winds and smooth sea ; rough sea at Southport and Mount's Bay. Rain fell on.

New Zealand.—Generally fine, with strong S.W. to N.W. winds ; squally and passing showers at Russell. Rough sea on west coast. Barometers : Russell, 29·8 ; Wellington and Bluff, 29·8.

Queensland.—Generally fine ; in south parts S.W. to W. winds, in north light S.E. winds. Sea moderate, and no rain fallen. Extremes of barometers and temperature : Cooktown, 30·16 and 65° ; Townsville, 29·85 ; and Brisbane, 57°.

New South Wales.—Generally fine, clear, and warm, with light variable winds and calms, slightly fallen barometers, and smooth sea. Unsettled and threatening rain in extreme south parts, especially west of the range ; stormy at Menindie, frosty at Bendermeer. Light rain has fallen at a few stations on the Murray and at Kiandra—heaviest at the latter, where 0·62 inch fell. Extremes of barometers and temperature at 9 a.m. : Clarence, 30·09 ; Gabo Island, 29·89 ; Newcastle, 64°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·043. Extra stations : Cargelligo (Lake), maximum 69, minimum 45, and fine. For further particulars see map.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, N.W., fine, temperature 75° ; Wentworth, N.N.W., fine, temperature 8[illegible] ; Deniliquin, calm, showery, temperature 62° ; Eden, N.E., 14, mac. smooth sea, temperature 62° ; Moruya, N.E., 28, fine, smooth sea, temperature 61° ; Cape St. George, N.E., 28, fine, smooth sea, temperature 66° ; Newcastle, Sydney, N.E., 10, fine, smooth sea, temperature 67° ; Port Macquarie, N.E., 10, fine, smooth sea, temperature 72° ; Clarence River, E.N.E., 10, 14, fine, smooth sea, temperature 69° ; Walgett, N.W., 10, fine, temperature 72° ; Dubbo, W., 20, fine, temperature 66° ; Goulburn, W.N.W., fine, temperature 57°.

STATE OF RIVERS.

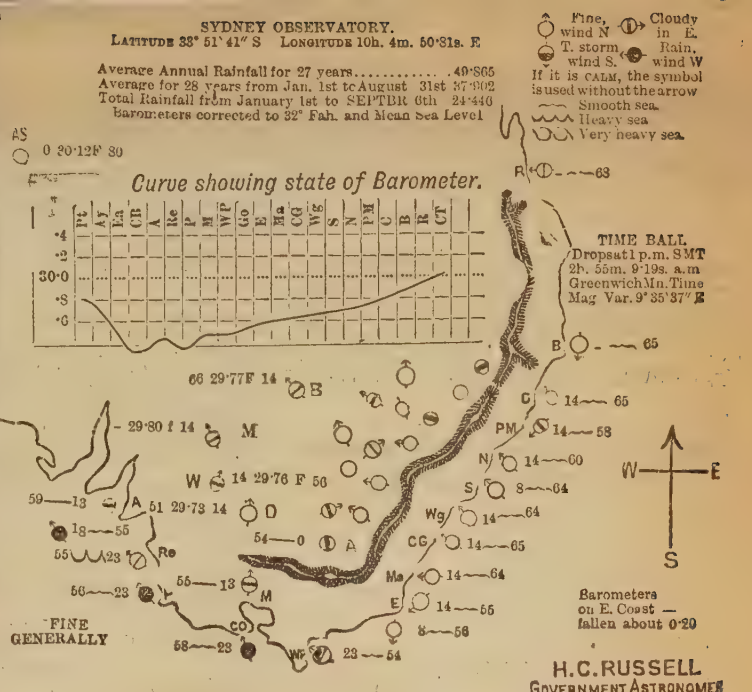
Barwon, 38 feet 2 inches above summer level ; Brewarrina, 31 feet above summer level ; Goodooga, 11 feet 6 inches above summer level ; Gundaesi, 6 feet 3 inches above summer level ; Louth, 39 feet 1 inch above summer level ; Mount Mogil, over banks ; Mungindi, 27 feet 6 inches above summer level ; Namoi, over banks ; Tilpa, 33 feet 2 inches above summer level. Murrumbidgee : At Wagga, 10 feet 9 inches above summer level ; at Hay, 10 feet 6 inches above summer level ; at Balranald, 11 feet 3 inches above summer level. Murray : At Albury, 6 feet above summer level ; at Euston, 9 feet 6 inches above summer level ; at Pooncarie, 21 feet 5 inches above summer level ; at Wilcannia, 33 feet above summer level ; at Bourke, 37 feet above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 6.

Sun rises at 6.13, sets at 5.40 ; Moon, 11.0 a.m., 12.20 a.m. ; Mercury, 5.31 a.m., 4.2 p.m. ; Venus, 5.11 a.m., 3.46 p.m. ; Mars, 8.45 a.m., 10.12 p.m. ; Jupiter, 7.3 a.m., 7.1 p.m. ; Saturn, 3.21 a.m., 1.22 p.m. Full Moon, September 3 ; New Moon, September 27.

High water at Port Denison, 1.24 a.m., 1.55 p.m.

Stations	wt	Mx	mn	R'fall
Albury	c	67	46	0·35
Armidale	b	49	42	0·11
Balranald	g	82	48	0·03
Bathurst	u	67	42	0·08
Bend'm'r	c	62	43	0
Bodalla ..	b	73	39	0
Bourke ..	c	82	56	0·17
Br'w'rrina	c	79	46	0·06
Bundarra	c	65	43	0
C'md'n H	g	71	49	0
C. St. Geo	b	68	48	0
Carcoar ..	g	59	46	0·23
Casino ..	b	80	45	0
Cassilis ..	b	64	51	0·25
Clarence	b	77	55	0
C'nd'b'lin	c	69	33	0·33
Cooma ..	c	70	43	0·04
Coonab'n	b	72	42	0·15
Cowra ..	b	72	46	0·14
Deniliq'n	g	76	39	0·40
Dubbo ..	b	71	41	0·12
Eden	b	63	52	0
Euston ..	c	82	37	0·05
Forbes ..	b	—	47	0·19
Gl'n Inn's	b	65	41	0
Goulburn	g	65	45	0·09
Grafton ..	f	83	43	0
Gulgong ..	b	65	43	0·09
Gunned'h	b	71	40	0
Hay	u	76	47	0·19
Inverell ..	b	68	36	0
Kiandra	r	61	36	1·24
Lismore ..	—	—	—	—
Maitland	b	51	69	0·21
Marsdens	c	70	48	0
Menindie	g	75	59	0·27
Molong ..	b	58	40	0·06
M'r'mg'r'll	b	68	53	0
Moree ..	b	78	47	0·01
Moruya ..	b	67	53	0·14
Moss Vale	b	63	50	0
Mt. Hope	b	71	51	0
Mt. Vict'ria	b	63	40	0
Mudgee ..	b	76	41	0·14
M'r'm'bh	c	69	45	0·29
M'r'r'ndi	g	66	52	0·22
Mus'll'br'k	g	74	47	0·23
Narrabri	b	71	47	0·02
Newcastle	b	68	55	0·28
Orange ..	g	58	45	0·27
Picton ..	b	69	44	0
P. M'q'rie	o	77	43	0
P. St'ph'n	r	67	44	0·20
Q'nbeyan	b	62	41	0·20
Quirindi	g	77	41	0·04
Singleton	g	61	36	0·20
SYDNEY ..	h	67	53	0·03
Tamw'rth	g	70	41	0
Taralga ..	u	69	44	0
Taree	c	71	46	0
T'nt'rfield	—	—	—	—
Wagga ..	u	69	45	0·39
Walcha ..	c	60	50	0
Walgett ..	c	69	56	0
Warrah ..	g	68	45	0
W'ntw'rth	g	78	52	0·01
W'll'ng'ng	b	74	54	0
Young ..	b	77	58	0·46



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and unsettled, with fresh S.W. to N.W. winds and moderate sea; rough sea off Geraldton, squally at Perth, and showery at Albany. Extremes of barometers and temperature: Ashburton, 30·08 and 73°; Albany, 29·56; and Perth, 56°.

South Australia.—Generally cloudy, gloomy, and threatening rain south of Hergott; showery on the coast east of Cape Borda, with fresh northerly winds, low barometers, and moderate to rough sea; light rain fallen over Mount Lofty Ranges and on the coast—heaviest at Cape Borda and at Port Lincoln, in west parts, where 0·36 inch fell; in east parts, at Mount Gambier, Millicent, and Beachport, with 0·65, 0·64, and 0·62 inches respectively. Extremes of barometers and temperature: Cape Borda, 29·35 and 55°; Eucla, 29·56 and 72°.

Victoria.—Generally cloudy and threatening rain, with light northerly winds, low barometers, and smooth sea. Passing showers of light rain and lightning in S.W. parts; squally at Wilson's Promontory; moderate rain fallen generally; heaviest at Wilson's Promontory, 1·02; at Cape Shanck, 0·82; and at Portland, 0·52. Extremes of barometers and temperature: Ballarat, 29·61 and 50°; Portland, 29·41; and Horsham, 57°.

Tasmania.—Generally unsettled, with fresh N.W. to W. winds, low barometers, and moderate sea; showery in extreme north and south parts; light rain fallen generally; heaviest at Low Heads, with 0·57 inches. Extremes of barometers and temperature: Low Heads, 29·44; Circular Heads, 53°; Hobart, 29·28 and 48°.

New Zealand.—Generally fine and calm. Barometers: Russell and Wellington, 30·2; Bluff, 30·1.

New South Wales.—Generally cloudy and unsettled, with light variable winds, fallen barometers, and smooth sea. Fine and warm in S.E. parts; raining at Kiandra and at Port Stephens. Light rain fallen during the last 48 hours in south parts and along the range generally, except at Kiandra, where 1¼ inch fell; the heaviest falls were below ½ inch. Extremes of barometers and temperature at 9 a.m.: Clarence, 29·86; Eden and Gabo, 29·58; Bourke, 66°; and Kiandra, 44°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29·723. Extra station: Lake Cudgellico, maximum 70, minimum 40, and threatening. For further particulars see map.

Queensland.—Generally fine, with light S.E. to S.W. winds and calms, and moderate sea. Rainfall: Rockhampton, 0·08; Brisbane, 0·02. Extremes of barometers and temperature: Cooktown, 30·07 and 84°; Townsville, 29·78; and Brisbane, 65°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.W., 34, misty, rain, smooth sea, temperature 56°; Cape Otway, N.N.W., 40, raining, foggy, and squally, rising sea, temperature 53°; Melbourne, N., 18, light rain, temperature 55°; Cape Schanck, N.N.W., 23, showery, moderate sea, temperature 57°; Wilson's Promontory, N.W., 8, overcast, smooth sea, temperature 60°.

New South Wales.—Menindie, N.W., dull, temperature 70°; Deniliquin, dull, and drizzling rain, temperature 64°; Wentworth, N., gloomy and threatening, temperature 56°; Eden, E.N.E., 14, like rain, smooth sea, temperature 63°; Moruya, N.W., 28, fine, smooth sea, temperature 73°; Cape St. George, N., 14, fine, smooth sea, temperature 68°; Sydney, N.W., 7, fine, and very warm, smooth sea, temperature 74°; Newcastle, W., 14, fine, smooth sea, temperature 73°; Port Macquarie, N.N.E., 28, fine, smooth sea, temperature 70°; Clarence River, N., 14, fine, smooth sea, temperature 78°; Walgett, calm, dull and sultry, temperature 74°; Dubbo, W., fine, but cloudy, temperature 66°; Goulburn, N.W., 14, dull, temperature 58°.

STATE OF RIVERS.

Barwon, 40 feet 6 inches above summer level; Bredongo, 30 feet 8 inches above summer level; Condobolin, 11 feet 8 inches above summer level; Gundagai, 7 feet 3 inches above summer level; Louth, 36 feet above summer level; Mogil Mogil, over banks; Mungindi, 27 feet above summer level; Namoi, over banks; Tilpa, 38 feet 6 inches above summer level. Murrumbidgee: At Wagga, 9 feet 9 inches above summer level; at Hay, 11 feet 6 inches above summer level; at Balranald, 10 feet 11 inches above summer level. Murray: At Albury, 7 feet above summer level; at Euston, 9 feet 10 inches above summer level. Darling: At Wentworth, 12 feet 6 inches above summer level; at Pooncarie, 21 feet 5 inches above summer level; at Menindie, 24 feet 7 inches above summer level; at Wilcannia, 33 feet 2 inches above summer level; at Bourke, 36 feet 9 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 7.

Sun rises at 6.12, sets at 5.44; Moon, 12.39 p.m., 1.30 a.m.; Mercury, 5.32 a.m., 4.22 p.m.; Venus, 5.15 a.m., 3.57 p.m.; Mars, 8.44 a.m., 10.12 p.m.; Jupiter, 7.26 a.m., 7.41 p.m.; Saturn, 3.38 a.m., 1.18 p.m. Full Moon, September 13; New Moon, September 27.

High water at Fort Denison, 2.26 a.m., 3.2 p.m.

8d; Combing Park, 40 grease combings at 7½d; D over J. Bauar, A WONDERFUL MEDICINE.

Subscribed capital 800,000

INTEREST is allowed on Fixed Deposits as under ;—
12 months ... ... 6½ per cent.
6 months ... ... 5½ per cent.
3 months ... ... 4½ per cent.

EBENEZER MACDONALD,
Manager.

SYDNEY MUTUAL FIRE INSURANCE COMPANY, Limited.

Capital £250,000. Subscribed, £100,000.

DIRECTORS.
Robert Butcher, Esq., M.L.A., Chairman.
Patrick Ryan Larkin, Esq. | William Hughes, Esq., J.P.
Edward Francis Flanagan, Esq. | Edward Joseph Ruble, Esq.
POLICY HOLDERS participate in profits.
DAMAGE by LIGHTNING and GAS EXPLOSION COVERED.
Fire risks taken at lowest current rates.
Head Office, 73, Elizabeth-street. Offices hours, 10 till 4.
E. J. RUBIE, Managing Director.

AUSTRALIAN MUTUAL PROVIDENT SOCIETY.

Established 1849.

FOR LIFE ASSURANCE on the MUTUAL PRINCIPLE.

The oldest Australian Mutual Life Office, and the only one distributing profits yearly.

HEAD OFFICE:
87, Pitt-street, Sydney.

DIRECTORS:
John H. Goodlet, Esq., Chairman.
Isaac Ellis Ives, Esq., M.L.A., Deputy-Chairman.
James R. Fairfax, Esq.
The Hon. Sir John Hay, K.C.M.G., M.L.C.
J. P. Abbott, Esq., M.L.A.
G. A. Murray, Esq.

CHIEF MEDICAL OFFICER:
Dr. W. F. Mackenzie, L.R.C.P. (Edin.)

ACTUARY: Morrice A. Black, F.I.A. | SECRETARY: Alex. J. Ralston.

NEW BUSINESS of 1885.
11,257 Policies, assuring £4,016,211, with New Premiums of £152,627.

Divisible Surplus of the year 1885	£278,177
Policies in force	70,000
Assuring (with bonus additions)	£28,000,000
Annual income	£1,210,000
Accumulated Funds	SIX MILLIONS sterling.

The distributions of profit take place yearly, and bonuses vest when policies have been two years in force.

AUSTRALIAN MUTUAL FIRE SOCIETY.

Established 1872.
Capital—£100,000, with power to increase to £1,000,000.
BONUSES—20 per cent., paid annually since 1873.

Directors:
Hon. John Sutherland, M.L.A., Chairman.
William Day, Esq., J.P. | James Green, Esq., J.P.
John Wetherill, Esq., J.P. | Sydney H. Cary, Esq.
FIRST FIRE SOCIETY ESTABLISHED in the COLONY on the MUTUAL PRINCIPLE, GIVING POLICY-HOLDERS BACK PART of their PREMIUMS as a CASH BONUS out of PROFITS EVERY YEAR.
Policy-holders are perfectly free by law from all liability.
Fifteen days' grace allowed for the payment of renewal premiums.
DAMAGE BY LIGHTNING AND EXPLOSIONS BY GAS PAID.
Prompt and liberal settlement for fires.
Fire Insurance at LOWEST RATES.
WALTER CHURCH, Manager.
HEAD OFFICES—CORNER PITT and KING STREETS.

AUSTRALIAN GENERAL ASSURANCE COMPANY (MARINE).
HEAD OFFICE: 97, PITT-STREET, SYDNEY.

Established 1836.

Directors: Charles Smith, Esq., Chairman; H. Austin, Esq.; John Gilchrist, Esq.; E. Vickery, Esq.; Hon. J. B. Watt, M.L.C.

MARINE RISKS OF EVERY DESCRIPTION ACCEPTED AT CURRENT RATES.
WOOL INSURED from time of shearing until reaching London.
HENRY T. FOX, Manager.

Books. Publications, &c.

JOHN SANDS' ART GALLERY,
374, George-street.

SELLING OFF.
To make room for fresh Importations.

SALE of high-class ENGRAVINGS
A large discount from original published prices.
SALE of high-class ETCHINGS
Reduction applies to Artists' Proofs and Prints.
SALE of high-class PHOTOGRAVURES
Discount only for cash purchases.
SALE of high-class COLOURED PHOTOGRAPHS
For one month only.
SALE of choice Oil and Water Colour DRAWINGS
The largest stock in Australia.

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A GOOD Handwriting or Bookkeeping Taught to Persons of any age, day or evening. Mr. Norris, Writing Master, 106, Elizabeth-street, near Hunter-street. Established 1861. Letters written.

CAMDEN Grammar School.—Healthy climate, magnificent house. Special attention paid delicate boys. Prospectus.

CHURCH OF ENGLAND GRAMMAR SCHOOL.—Shorthand included in business educa. Prospectus posted

EDUCATIONAL.—Widow Lady wishes TUTOR for Son. Would give comfortably furnished Bedroom for two hours daily instruction in good English, French, or German, and general subjects. Widow, P. O., Woollahra.

FRENCH, German, Italian Taught by an experienced Master; first-class testimonials; terms moderate. Apply Signor Consolini, 7, Spring-street, Sydney.

GUITAR Taught, very good method; use of instrument for practice. Elvy and Co., 329, George-street.

GUITAR TUITION.—Francis Robt. Peel gives Lessons at Paling's Music Warehouse; or 132, Glebe-road.

MISS BRODZIAK has resumed Tuition in Music, Singing, French; visits and receives pupils. 169, Wm.-st.

MISS RIORDAN receives Pupils every morning at her residence, 11, Upper William-street North, Darlinghurst.

MUSICAL INSTITUTE (op. Gaiety Theatre). Boyle's Singing Classes, Mon'y Eve., 27th. Beginners, 10s 6d qr.

MONS. CAILLIAU'S PROGRESSIVE SINGING CLASSES.
A New Quarter will commence Next MONDAY EVENING, at Paling and Co.'s, 356, George-street, near G. P. O. 10s 6d per qr.

NOTICE.—Vacancies for Resident PUPILS at Public School, Newbridge, G. W. R. For particulars apply to Head Teacher.

ORGAN, Piano, Singing Lessons.—Mrs. Palmer, Niagara-terrace, Green's-road, Paddington, and Huenerbein's.

VIOLIN TUITION.—Francis Robt. Peel gives Lessons at Paling's Music Warehouse; or at 132, Glebe-road.

Tenders.

BOROUGH OF PADDINGTON.

TO CAPITALISTS.

TENDERS will be received up till 7 p.m. on TUESDAY, 18th instant, for the Purchase of SEVENTY-FIVE (75) DEBENTURES, value £100 each, and bearing interest at the rate of £8 per centum per annum, and having a currency of 2 years.
Further particulars may be obtained upon application to the undersigned.

GEO. E. BLACKMORE,
Council Clerk.
Council-chambers, 6th September, 1886.

IN THE ASSIGNED ESTATE of T. and W. M'DERMOTT, of ORANGE.

TENDERS are invited up to noon on WEDNESDAY next, the 8th September, for the following :—

LOT 1.
Bakery, Plant, and Tools
1 Grey Horse
1 Chestnut Mare
2 Bread Carts
2 Sets Harness
Troughs
Tins and Sundries in Bakehouse.

LOT 2.
The Freehold Land, with two Shops, House, Bakehouse, Stove
Three-stalled Stable, and other outbuildings, situate in Summer-street, Orange.

LOT 3.
Lease to be granted (if property not sold as above lot 2) for a period of three years.

Tenders to be accompanied by a deposit of 10 per cent.
The Trustees do not bind themselves to accept the highest or any tender.

Any further information can be obtained on application on the premises : or to
STARKEY and TAYLOR, Chartered Accountants,
Warne and Reid's-buildings,
32A, York-street,
Sydney.

IN THE ASSIGNED ESTATE OF T. F. FLANAGAN, of Warialda, Storekeeper.
TENDERS are invited to the 7th day of September next, at noon, for the Purchase of the following Assets herein :—

LOT 1—Men's Clothing and Mercery		£264	10 4
Manchester		147	18 5
Dress Goods		57	14 1
Haberdashery		31	19 1
Millinery		235	0 3
Boots and Shoes		119	14 8
Ironmongery		234	8 8
Glass and Crockery Ware		28	12 1
Fancy Goods		95	12 9
Patent Medicines		33	3 2
Groceries		144	8 5
Working Plant		14	15 6
		1407	17 4
LOT 2—Book Debts : Good	£376 16 4		
Bad	35 14 8		
Doubtful ...	5 15 9		
		418	6 9
LOT 3—Furniture		23	19 9
		£1850	3 10

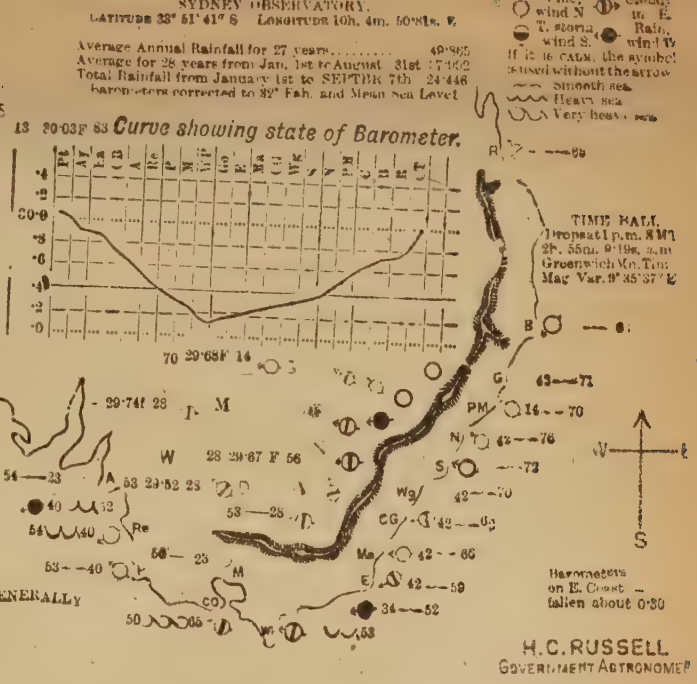
Stock-sheets may be seen on the premises, or at the Counting-

Albury	u	83 53	0·85
Armidale	b	62 49	0
Balranald	g	67 49	0·06
Bathurst	r	69 52	0·17
Bend'm'r	b	64 49	0
Podalla	g	79 56	0·02
Bourke	b	83 64	0
Br'w'rrina	b	81 41	0
Bunderra	b	72 52	0
C'mdn H	b	73 55	0
C. St. Geo	c	76 48	0
Carcoar	g	61 56	0·23
Casino	b	85 58	0
Casellis	u	67 55	0
Clarence	b	80 65	0
C'ad'b'lin	g	69 43	0·04
Cooma	r	65 46	0·15
Coonab'n	b	75 57	0
Cowra	u	70 45	0·04
Deniliq'n	g	62 46	0·23
Dubbo	r	72 58	0·05
Eden	b	63 54	0·03
Euston	c	66 50	0·10
Forbes	u	— 45	0
Gl'n Inn's	b	70 41	0
Goulburn	g	65 51	0·06
Grafton	b	83 54	0
Gulgong	c	68 54	0·04
Gunned'h	b	76 55	0
Hay	c	69 52	0·03
Inverell	b	71 36	0
Kiandra	r	50 31	2·61
Lismore	b	85 59	0
Maitland	b	70 58	0
Marsden	c	69 56	0·04
Menindie	g	72 61	0
Molong	r	67 53	0·20
M'r'ng'r'll	c	67 57	0·19
Moree	b	78 52	0
Moruya	b	76 62	0
Moss Vale	b	65 56	0·06
Mt. Hope	c	65 56	0
M. Vict'ria	r	64 50	0·10
Mudgee	g	73 48	0·11
M'rr'm'bh	c	67 56	0·15
M'rr'ndi	b	65 55	0
Mus'br'k	b	77 52	0
Narrabri	b	76 52	0
Newcastle	b	76 60	0
Orange	g	62 48	0·68
Picton	c	73 59	0
P. M'q'rie	b	71 56	0
P. St'ph'n	b	76 51	0
Q'nbeyan	g	61 53	0·40
Quirindi	b	69 49	0
Singleton	b	74 62	0
SYDNEY	b	76 65	0
Tamw'rth	b	73 48	0
Taralga	g	65 55	0·21
Taree	b	72 50	0
Tent'rfield	b	79 62	0
Wagga	u	68 54	0·14
Walcha	b	69 41	0
Walgett	b	78 69	0
Warrah	b	70 50	0
Wat'w'rth	c	78 52	0·03
W'll'ng'ng	b	78 63	0
Young	g	73 53	0·13

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to August 31st 37·662
Total Rainfall from January 1st to SEPTBR 7th 24·446
Barometers corrected to 32° Fah. and Mean Sea Level



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M/a gives the maximum temperature for previous 24 hours. M/n the corresponding minimum temperature 9 a.m. this morning for the previous 24 hours. The symbols used in the map are explained on the margin. At each constellation the wind's force is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown; Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ie, Ivebe; P, Fernando; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden Na, Moruya; C, Cape Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Cape Byron; E, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Cape Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally overcast and gloomy, with light variable winds, and moderate sea. Heavy showers in south parts from N.W. Rainfall: Albany 0·46, and Perth 0·14 inch. Extremes of barometers and temperature: Geraldton 30·12, Albany 29·84, Ashburton 74°, and Perth 49°.

South Australia.—Generally cloudy and unsettled, with rain in places south of Peake fresh N.W. to S.W. winds, and rough sea. Squally on the coast. Rain recorded south of Beltana; greatest over Mount Lofty Ranges, where from 1·00 to 2·35 inches fell; over the rest of the colony from 0·20 to 0.70 inch. Extremes of barometers and temperature: Eucla 29·91 and 55°, Cape Borda 52°, and M'Donnell Bay 29·32.

Victoria.—Generally fine, with clouds in the east: strong W. to N.W. winds, low barometers, and rough sea: tremendous sea off Cape Otway; squally, with hail, on S.W. coast. Fierce squalls at Wilson's Promontory; moderate and strong winds along the coast generally; passing showers at Ballarat; rain fairly general; heaviest at Cape Otway 1·06 inch. Extremes of barometers and temperature: Horsham, 29·47 and 56°; Wilson's Promontory, 29·12; and Ballarat, 49°.

Tasmania.—Generally unsettled, with fresh W. to S. winds very low barometers, and moderate sea: showery at south part with rough sea. Rainfall: Circular Heads, 1·01; Low Heads, 1·12. Falmouth, 0·90. Extremes of barometers and temperature: Circular Heads, 29·01; Southport 28·82; Low Heads, 42°; and Falmouth, 55°.

New Zealand.—Generally fine, with N.E. to N.W. winds. Barometers: Russell, 30·1; Wellington, 30·2; and Bluff, 29·9.

New South Wales.—In north parts fine; in south cloudy and threatening. In the districts between Dubbo and Mount Victoria, and on the range in extreme south, showery. Winds generally are fresh from W. to N.W., barometers low and falling, temperature generally high, and the sea smooth. Along the coast the wind is strong and squally; at Sydney fierce squalls, blowing at the rate of from 50 to 70 miles per hour, is setting in at intervals. Light rain has fallen in south parts generally, but principally west of the range, and heaviest at Kiandra, where over 1½ inches fell. Extremes of barometers and temperature: Menindie, 29·74; Eden, 29·19; Newcastle, 76°; and Kiandra, 37°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea-level, 29·357. Extra station: Lake Cudgellico, max. 65, min. 33, and threatening. For further particulars see map.

Queensland.—Generally fine, with N.W. to S.W. winds in south parts, and S.E. winds and calm in north. Extremes of barometers and temperature: Cooktown 29·99 and 88°; Cape Moreton, 29·13 and 68°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 56, fine, squalls, and showery, sea smooth, temperature 52°; Cape Otway, W.N.W., 56, squally and showery, sea tremendous, temperature 49°; Melbourne, W.N.W., 23, showery, temperature 50°; Cape Nelson, W., 34, showery, sea high temperature 57°.

New South Wales.—Menindie, W., 42, overcast and dull, temperature 65°; Wentworth, 28, stormy, temperature 56°; Deniliquin, W., showery and dull, temperature 52°; Eden, N.W., 28, fine, sea smooth, temperature 67°; Moruya, W., 42, fine, sea smooth, temperature 68°; Cape St. George, W.S.W., 42, fine, sea smooth temperature 67°; Sydney, W.S.W., 20, fine, sea smooth, temperature 70°; Newcastle, W., 29, fine, sea smooth, temperature 70°; Port Macquarie, N.E., 14, fine, sea smooth, temperature 68°; Euston, W., 28, cloudy; Dubbo, W.S.W., 42, temperature 65°; Yamba, N.W., 28, fine, smooth, temperature 57°; Goulburn, N.W., fine, temperature 59°.

STATE OF RIVERS.

Barwon 41 feet 2 inches above summer level; Brewarrina, 1 feet 10 inches above summer level; Gundagai, 11 feet 1 inch above summer level; Grandagai, 8 feet above summer level; Louth, 36 feet 1 inch above summer level. Moama, over banks; Mungindi 36 feet 6 inches above summer level, over banks; Tilpa, 38 feet 6 inches. Murrumbidgee at Wagga, 10 feet above summer level; at Hay, 11 feet 1 inches above summer level, at Balranald, 10 feet 10 inches above summer level. Murray: At Albury, 7 feet 2 inches above summer level; at Euston: 10 feet above summer level. Darling, At Wentworth, 12 feet 8 inches above summer level; at Tooncarie, 21 feet 5 inches above summer level, at Menindie 24 feet 7 inches above summer level; at Wilcannia, 33 feet 3 inches above summer level; at Bourke, 36 feet 7 inches above summer level.

Very violent squalls of wind at Sydney just after 9 a.m.; the velocity of the wind reached 50 miles per hour.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 8.

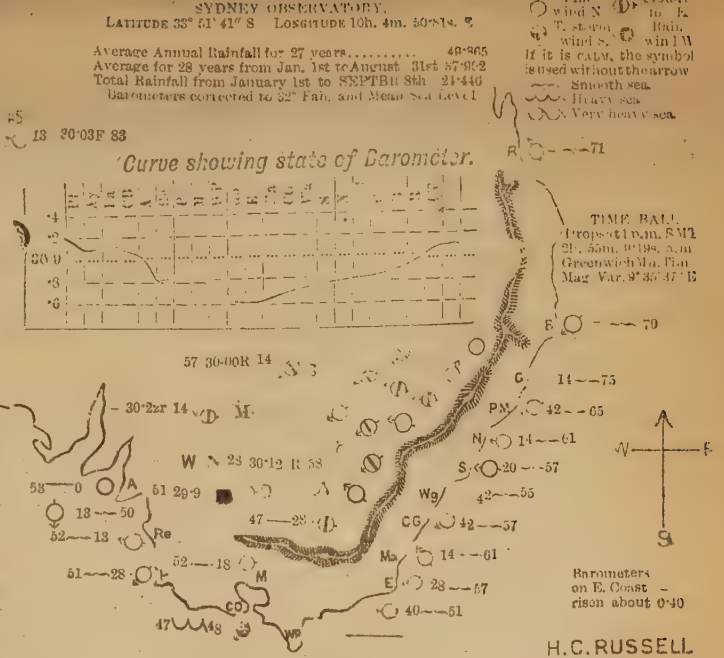
Sun rises at 6.11, sets at 5.45; Moon, 1.20 p.m., 2.21 a.m.; Mercury, 5.38 a.m., 4.26 p.m.; Venus, 5.15 a.m., 3.59 p.m.; Mars, 3.42 a.m., 10.11 p.m.; Jupiter, 7.22 a.m., 7.41 p.m.; Saturn, 3.14 a.m., 1.14 p.m. Full Moon, 13th; New Moon, 27th. High water at Port Denison, September 8: 3.38 a.m.; 4.25 p.m.

Stations		W.T.	M'x	M'n	Rain
Albury	c	57	46	0·20	
Armidale	b	52	49	0	
Balranald	b	63	33	0	
Bathurst	b	56	41	0·04	
Bend'm'r	g	74	59	0	
Bodalla	h	72	51	0	
Bourke	c	84	57	0	
Br'w'rrina	c	79	47	0	
Bundarra	c	79	56	0	
C'md'n H	b	85	64	0	
C. St. Geo	b	72	49	0	
Carcoar	g	55	41	0·20	
Casino	b	93	64	0	
Cassilis	b	69	52	0	
Clarence	b	87	65	0	
C'nd'b'lin	b	62	32	0	
Cooma	b	60	34	0·07	
Coonab'n	b	76	50	0	
Cowra	g	67	44	0·02	
Deniliq'n	b	60	35	0·04	
Dubbo	b	70	44	0	
Eden	b	68	57	0	
Euston	b	60	32	0	
Forbes	b	—	45	0	
Gl'n Inn's	b	73	49	0	
Goulburn	b	59	38	0	
Grafton	b	95	65	0	
Gulgong	b	63	41	0	
Gunned'h	b	79	55	0	
Hay	b	69	39	0	
Inverell	c	71	37	0	
Kiandra	b	39	31	0·69	
Lismore	b	95	60	0	
Maitland	b	80	55	0	
Marsdens	b	61	46	0	
Menindie	b	65	53	0	
Molong	b	85	44	0	
M'r'ng'r'll	b	63	44	0·02	
Moree	g	87	54	0	
Moruya	b	71	61	0	
Moss Vale	b	59	42	0	
Mt. Hope	b	62	46	0	
M. Vict'ria	b	64	35	0	
Mudgee	b	63	40	0·05	
M'rr'm'bh	c	58	44	0	
M'rr'm'ndi	g	72	54	0	
Mus'b'r'k	b	81	50	0	
Narrabri	g	83	56	0	
Newcastle	b	82	54	0	
Orange	c	54	36	0·10	
Picton	b	68	49	0	
P. M'q'rie	b	86	58	0	
P. St'ph'n	b	80	51	0	
Q'nbeyan	b	58	41	0·08	
Quirindi	c	75	52	0	
Singleton	b	72	59	0	
SYDNEY	h	74	54	0	
Tamw'rth	g	76	54	0	
Taralga	b	56	37	0·20	
Taree	c	87	60	0	
T'nt'rfield	–	—	—	–	
Wagga	u	58	42	0·01	
Walcha	c	71	43	0	
Walgett	g	79	57	0	
Warrah	b	71	51	0	
W'ntw'rth	c	61	38	0·03	
W'll'ng'ng	b	72	53	0	
Young	g	62	41	0·13	

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·8s. E

Average Annual Rainfall for 27 years..... 48·865
Average for 28 years from Jan. 1st to August 31st 37·962
Total Rainfall from January 1st to SEPTBR 8th 21·446
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL,
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; Rain, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine but cloudy, with N.E. to S.E. winds in north parts, and N.W. wind in south, risen barometers, and smooth sea. Rainfall: 0·07 at Esperance Bay. Extremes of barometers and temperature: Goraldton, 30·24; Ashburton, 75°; Albany, 30·00; and Esperance Bay, 43°.

South Australia.—Generally fine, with scattered clouds, light N.W. to S.W. winds, risen barometers, and moderate sea; light rain has fallen at scattered places south of Peake; heaviest at Peake and Angaston, where 0·28 inch fell. Extremes of barometers and temperature: On coast—Eucla, 30·14 and 58°; M'Donnell Bay, 29·64 and 49°. In Northern Territory—Daly Waters, 30·02 and 82°; Port Darwin, 29·90 and 86°.

Victoria.—Generally fine, with fresh, squally S. to W. winds, and rough sea. Showery at Capes Otway and Schanck. Rainfall: Portland, 0·21; Cape Otway, 0·83; Cape Schanck, 0·49. Extremes of barometers and temperature: Horsham, 29·98 and 53°; Cape Schanck, 29·79; and Hamilton, 43°.

Tasmania.—Generally cloudy and unsettled, with fresh S.W. to W. winds, risen barometers, and moderate sea; showery and rough sea at Southport; misty rain at Hobart. Rainfall: Southport, 0·55; Circular Heads, 0·12; and Hobart, 0·02. Extremes of barometers and temperature: Circular Heads, 29·63; Southport, 29·45; Low Heads, 49°; and Falmouth, 51°.

New Zealand.—Russell: Barometer, 29·9; strong N. W. wind, and showery weather. Wellington: Barometer, 29·8; north wind, and gloomy. Bluff: 29·3; N. E. wind and fine; strong N. E. wind, and rough sea on west coast.

New South Wales.—Generally fine and clear, with fresh westerly winds, rising barometers, fallen temperature, and smooth sea. Cloudy along the ranges. Light rain fallen in south parts; heaviest at Kiandra, where 0·63 inches fell. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·22; Gabo Island, 30·60; Clarence Heads, 75°; and Kiandra, 35°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m.: 29·787. Extra station: Lake Cudgellico, max. 60°, min. 39°, fine and clear. For further particulars see map.

Queensland.—Generally fine, with light variable winds and calms, and moderate sea. No rain fallen. Extremes of barometers and temperature: Cooktown 30·08 and 86°; and Cape Moreton, 29·82 and 69°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 28, passing showers, sea smooth, temperature 53°; Cape Otway, W., 34, passing showers, sea high, temperature 50°; Melbourne, S.W., 13, fine, temperature 52°; Cape Schanck, W.S.W., 23, cloudy and misty, sea rough, temperature 56°; Wilson's Promontory, W.S.W., 34, squally and rough, temperature 51°.

New South Wales.—Menindie, calm, fine, temperature 62°; Wentworth, W., fine, temperature 57°; Deniliquin, calm, fine, temperature 62°; Eden, W., 28, fine, sea smooth, temperature 62°; Moruya, N.E., 28, fine, sea smooth, temperature 60°; Cape St. George, W., 28, fine, sea smooth, temperature 62°; Sydney, W.S.W., 20, fine, sea smooth, temperature 63°; Newcastle, W., 28, fine, sea smooth, temperature 70°; Port Macquarie, W., 42, fine, sea smooth, temperature 75°; Clarence River, S., 1, fine, sea smooth, temperature 79°; Walgett, S.W., dull, temperature 60°; Dubbo, W.S.W., 14, fine, temperature 66°; Goulburn, N.W., 28, fine, temperature 54°.

STATE OF RIVERS.

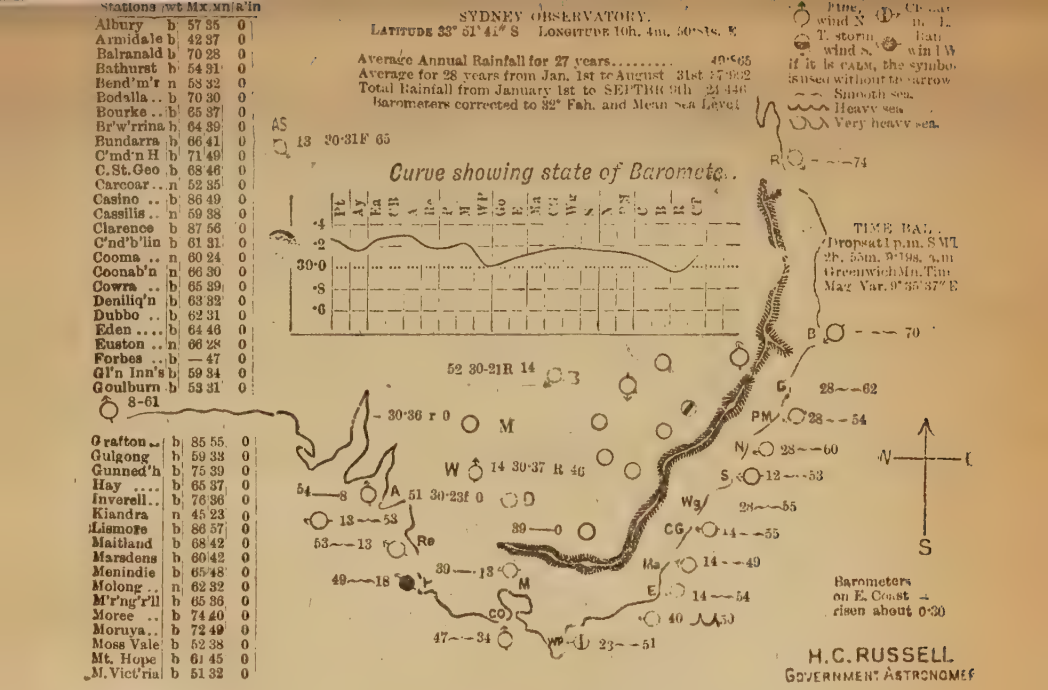
Barwon, 41 feet 1 inch above summer level; Brewarrina, 29 feet 11 inches above summer level; Godooga, 10 feet 10 inches above summer level; Gundagai, 10 feet above summer level; Louth, 36 feet above summer level; Mogil Mogil, over banks; Mungindi 26 feet above summer level; Namoi, over banks; Tilpa, 38 feet 6 inches. Murrumbidgee: At Wagga, 10 feet above summer level; at Hay, 12 feet 3 inches above summer level; at Balranald, 10 feet 10 inches above summer level. Murray: At Albury, 8 feet 6 inches above summer level; at Euston: 10 feet 2 inches above summer level. Darling: At Wentworth, 12 feet 9 inches above summer level; at Pooncarie, 21 feet 5 inches above summer level, at Menindie, 24 feet 7 inches above summer level; at Wilcannia, 33 feet 3 inches above summer level; at Bourke, 36 feet 5 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 9.

Sun rises at 6.10, sets at 5.46: Moon, 2.22 p.m., 3.9 a.m.; Mercury, 5.34 a.m., 4.30 p.m.; Venus, 5.15 a.m., 4.1 p.m.; Mars, 8.40 a.m., 10.11 p.m.; Jupiter, 7.18 a.m., 7.38 p.m.; Saturn, 3.11 a.m., 1.11 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 9: 4.32 a.m., 5.24 p.m.

Stations	wt	Mx	mn	r'in
Albury	b	57	35	0
Armidale	b	42	37	0
Balranald	b	70	28	0
Bathurst	b	54	31	0
Bend'm'r	n	58	32	0
Bodalla ..	b	70	30	0
Bourke ..	b	65	37	0
Br'w'rrina	b	64	39	0
Bundarra	b	66	41	0
C'md'n H	b	71	49	0
C. St. Geo	b	68	46	0
Carcoar ..	n	52	35	0
Casino ..	b	86	49	0
Cassilis ..	n	59	38	0
Clarence	b	87	56	0
C'nd'b'lin	b	61	31	0
Cooma ..	n	60	24	0
Coonab'n	n	66	30	0
Cowra ..	b	65	39	0
Deniliq'n	b	63	32	0
Dubbo ..	b	62	31	0
Eden	b	64	46	0
Euston ..	n	66	28	0
Forbes ..	b	—	47	0
Gl'n Inn's	b	59	34	0
Goulburn	b	53	31	0
Grafton ..	b	85	55	0
Gulgong	b	59	33	0
Gunned'h	b	75	39	0
Hay	b	65	37	0
Inverell ..	b	76	36	0
Kiandra	n	45	23	0
Lismore	b	86	57	0
Maitland	b	68	42	0
Marsdens	b	60	42	0
Menindie	b	65	48	0
Molong ..	n	62	32	0
M'r'ng'r'll	b	65	36	0
Moree ..	b	74	40	0
Moruya ..	b	72	49	0
Moss Vale	b	52	38	0
Mt. Hope	b	61	45	0
M. Vict'ria	b	51	32	0
Mudgee	b	69	29	0
M'rr'm'bh	b	63	37	0
M'rr'r'ndi	b	60	41	0
Mus'll'br'k	b	67	31	0
Narrabri	b	70	50	0
Newcastle	b	76	45	0
Orange ..	b	53	33	0
Picton ..	b	62	44	0
P. M'q'rie	b	74	39	0
P. St'ph'n	b	69	46	0
Q'nbeyan	b	54	39	0
Quirindi	n	72	38	0
Singleton	b	69	46	0
Sydney ..	b	66	49	0
Tamw'rth	n	62	30	0
Taralga ..	b	59	27	0
Taree	b	72	42	0
T'nt'rfield	b	72	53	0
Wagga ..	b	47	59	0
Walcha ..	n	57	27	0
Walgett ..	b	61	43	0
Warrah ..	b	70	38	0
W'ntw'rth	b	65	38	0
W'll'ng'ng	b	67	47	0
Young ..	n	73	28	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b, standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, irosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Cr, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light N.E. to N.W. winds, risen barometers, and moderate sea. Rainfall: Perth, 0·05; Albany, 0·02. Extremes of barometers and temperature: Geraldton, 30·27; Cossack, 29·91 and 70°; Esperance Bay, 45°.

South Australia.—Generally fine inland, few scattered clouds near the coast, with light variable winds and calms, risen barometers, and moderate sea. Showery at the Peake, and at M'Donnell Bay. A few points of rain fallen in south-eastern parts. Extremes of barometers and temperature: On coast—Adelaide, 30·28; M'Donnell Bay, 30·17; Robe, 53°; and Eucla, 61°.

Victoria.—Generally fine and cold, with light north to west winds, risen barometers, and moderate sea. Passing showers at Portland; hazy and misty along the coast; squally at Wilson's Promontory; and frosty inland. Rainfall: Wilson's Promontory, 0·12. Cape Otway, 0·11; Cape Schanck and Portland, 0·06. Extremes of barometers and temperature: Horsham, 30·24 and 54°; Wilson's Promontory, 30·03; and Melbourne, 39°.

Tasmania.—Generally fine, with light W. to S.W. winds, risen barometers, and smooth sea; rough sea at Southport. Rainfall: Southport, 0·12; Hobart, 0·02; and Circular Heads, 0·03. Extremes of barometers and temperature: Along north coast, 30·00 and 49°; on E. coast, 29·86; and at Southport, 54°.

New Zealand.—Generally showery, with strong N.W. to S.W. winds. Rainfall at Wellington, 0·58. Barometer: Russell and Wellington, 29·6; Bluff, 29·4.

New South Wales.—Generally fine and cold, with light N.W. to S.W. winds and calms, rising barometers, and smooth to moderate sea; but rough off Gabo Island; severe frost along the range. No rain fallen. The Darling falling slowly; the Murray and Murrumbidgee rising. Extremes of barometers and temperature: Wentworth, 30·37; Gabo Island, 30·01; Clarence Heads, 62°; and Kiandra, 31°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m.: 30·165. Extra station: Lake Cudgellico, max. 69°, min. 35°, and fine. For further particulars see map.

Queensland.—Generally fine, with light S.E. to S.W. winds and calms, and moderate sea. No rain fallen. Extremes of barometers and temperature: Cooktown, 30·12 and 88°; Townsville, 29·86; and Cape Moreton, 62°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 28, passing showers, sea smooth, temperature 58°; Cape Otway, N.W., 28, fine, moderate sea, temperature 56°; Melbourne, S.S.E., 8, fine, but cloudy, temperature 55°; Cape Schanck, W., 13, fine, cloudy, moderate sea, temperature 56°; Wilson's Promontory, W., 23, passing showers, moderate sea, temperature 51°; Lake's Entrance, W.S.W., 23, fine, but cloudy, temperature 58°.

New South Wales.—Menindie, calm, dull, and threatening, temperature 62°; Wentworth, calm, dull, temperature 57°; Deniliquin, W., fine, temperature 63°; Eden, S.W., 14, fine, sea smooth, temperature 62°; Moruya, N.E., 28, fine, sea smooth, temperature 68°; Cape St. George, S.E., 14, fine, moderate sea, temperature 60°; Sydney, E., 10, fine and hazy, moderate sea, temperature 59°; Port Macquarie, S., 28, fine, smooth, temperature 67°; Clarence River, S., 28, fine, moderate sea, temperature 66°; Walgett, S.E., fine and cool, temperature 60°; Dubbo, calm, fine, temperature 60°; Goulburn, N.W., 14, fine, temperature 56°.

STATE OF RIVERS.

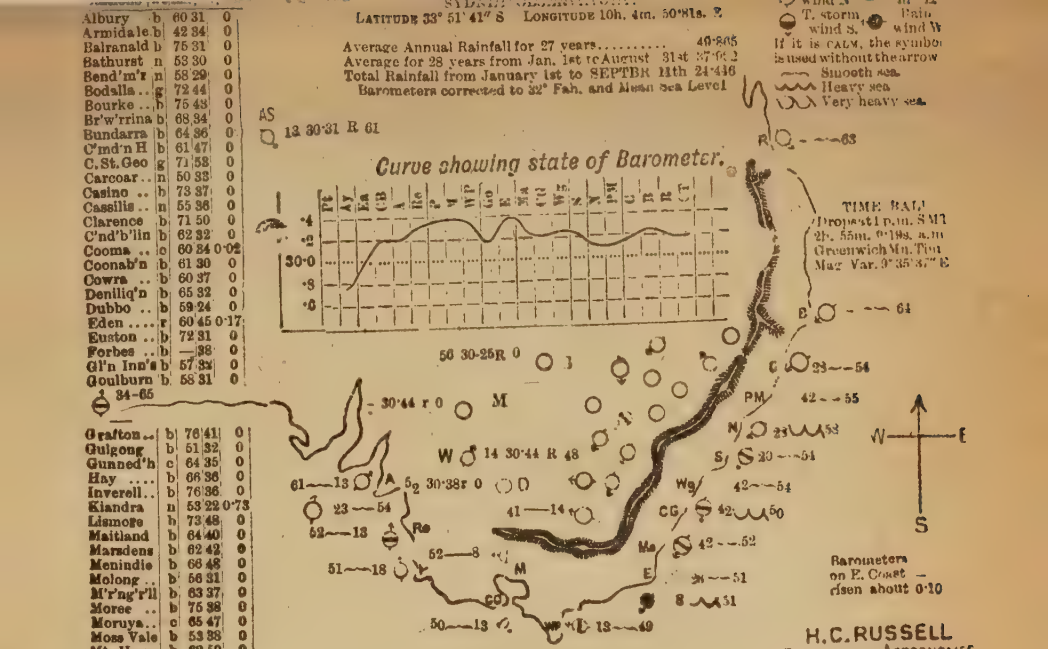
Barwon, 40 feet 6 inches above summer level; Brewarrina, 29 feet 11 inches above summer level; Godooga, 10 feet 5 inches above summer level; Gundagai, 17 feet 6 inches above summer level; Louth, 35 feet 11 inches above summer level; Mogil Mogil, over banks; Mungindi 25 feet 6 inches above summer level; Namoi over banks; Tilpa, 38 feet 6 inches above summer level. Murrumbidgee: At Wagga, 13 feet 6 inches above summer level; at Hay, 12 feet 6 inches above summer level at Balranald, 11 feet 3 inches above summer level. Murray: At Albury, 10 feet above summer level; at Euston: 10 feet 4 inches above summer level. Darling: At Wentworth, 12 feet 11 inches above summer level; at Pooncarie, 21 feet 6 inches above summer level; at Menindie, 24 feet 8 inches above summer level; at Wilcannia, 33 feet 3 inches above summer level; at Bourke, 36 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 10.

Sun rises at 6.8, sets at 5.46; Moon, 3.13 p.m., 3.50 a.m.; Mercury, 5.36 a.m., 4.34 p.m.; Venus, 5.15 a.m., 4.3 p.m.; Mars, 8.38 a.m., 10.10 p.m.; Jupiter, 7.14 a.m., 7.34 p.m.; Saturn, 3.7 a.m., 1.7 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 10: 5.55 a.m; 6.21 p.m.

Albury	b	60	31	0
Armidale	b	42	34	0
Balranald	b	75	31	0
Bathurst	n	53	30	0
Bend'm'r	n	58	29	0
Bodalla ..	g	72	44	0
Bourke ..	b	75	43	0
Br'w'rrina	b	68	34	0
Bundarra	b	64	36	0
C'md'n H	b	61	47	0
C. St. Geo	g	71	53	0
Carcoar ..	n	50	33	0
Casino ..	b	73	37	0
Cassilis ..	n	55	36	0
Clarence ..	b	71	50	0
C'nd'b'lin	b	62	32	0
Cooma ..	c	60	24	0·02
Coonab'n	b	61	30	0
Cowra ..	b	60	37	0
Deniliq'n	b	65	32	0
Dubbo ..	b	59	24	0
Eden	r	60	45	0·17
Euston ..	b	72	31	0
Forbes ..	b	—	38	0
Gl'n Inn's	b	57	32	0
Goulburn	b	58	31	0
Grafton ..	b	76	41	0
Gulgong	b	51	32	0
Gunned'h	c	64	35	0
Hay	b	66	36	0
Inverell ..	b	76	36	0
Kiandra	n	53	22	0·73
Lismore	b	73	48	0
Maitland	b	64	40	0
Marsdens	b	62	42	0
Menindie	b	66	48	0
Molong ..	b	56	31	0
M'r'ng'r'll	b	63	37	0
Moree ..	b	75	38	0
Moruya ..	c	65	47	0
Moss Vale	b	53	38	0
Mt. Hope	b	62	50	0
M. Vict'ria	b	51	34	0
Mudgee	b	65	30	0
M'rr'm'bh	b	64	36	0
M'rr'ndi	b	55	38	0
Mus'br'k	b	62	32	0
Nerrabri	b	70	43	0
Newcastle	b	63	46	0
Orange ..	b	48	34	0
Picton ..	n	62	33	0
P. M'q'rie	b	63	40	0·26
P. St'ph'n	r	63	40	0·17
Q'nbeyan	n	55	36	0
Quirindi	b	63	35	0
Singleton	b	64	48	0
Sydney ..	g	62	48	0
Tamw'rth	–	—	—	—
Taralga ..	b	59	31	0
Taree	b	67	44	0
T'at'rfield	b	64	49	0
Wagga ..	b	66	46	0
Walcha ..	n	53	24	0
Walgett ..	b	65	41	0
Warrah ..	n	66	33	0
W'ntw'rth	b	68	39	0
W'll'ng'ng	b	63	48	0
Young ..	n	72	31	0



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, fine and clear, with fresh N.W. wind and moderate sea; barometer, 29.77; temperature, 54°.

South Australia.—Generally fine, with light scattered clouds, fresh northerly winds, steady barometers, and smooth sea. Squally at Eucla; no rain fallen. Extremes of barometers and temperature: M'Donnell Bay, 30·32 and 49°; Eucla, 30·84 and 65°. In Northern Territory: Daly Waters, barometer 30·10, temperature 76°; Port Darwin, 29·93 and 85°.

Victoria.—Generally cloudy and unsettled, with light variable winds, risen barometers, and smooth sea. Foggy at Melbourne, frosty inland. Rainfall: Wilson's Promontory, 0·18; Lakes Entrance, 0·04; Hamilton and Ballarat, each 0·02. Extremes of barometers and temperature: Melbourne, 30·39; Hamilton, 30·30 and 43°; Horsham, 56°.

Tasmania.—Generally fine, with light S.E. to S.W. winds, risen barometers, and moderate sea. Rough sea at Falmouth. Five points rain fallen at Southport. Extremes of barometers and temperature: Low Heads, 30·06; Falmouth, 30·26 and 50°; Hobart, 44°.

New Zealand.—Generally fine, with W. to S.W. winds. At Wellington thunderstorms early this morning. Barometers: Russell, 29·9; Wellington, and Bluff, 29·7.

New South Wales.—Generally fine and cold, with light N.W. to S.W. winds and risen barometers. Sea: moderate in north, rough in south. Severe frost all along the range, as far north as Bendermeer and Walcha. On the coast strong, squally, southerly winds, with clouds and passing showers south of Nelson's Bay. Light rain has fallen at a few places on and near the coast; heaviest at Kiandra, where nearly ¾ inch fell. Extremes of barometers and temperature at 9 a.m.: At Wentworth and Menindie, 30·44; Port Macquarie, 30·11; Newcastle, 58°, and Kiandra, 35°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·235. Extra station: Lake Cudgellico, max. 65°, min. 37°, fine and cool. For further particulars see map.

Queensland.—Generally fine, with S.E. to S.W. winds, and steady barometers, and moderate sea. Rainfall: Brisbane, 0·02; Rockhampton, 0·16. Extremes of barometers and temperature: Brisbane, 30·21; Townsville, 29·78; Cooktown 85°; and Cape Moreton, 57°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E., 18, cloudy, smooth sea, temperature 60°; Cape Otway, E.S.E., 18, cloudy, smooth sea, temperature 53°; Melbourne, no telegrams; Wilson's Promontory, S.W., 12, cloudy, smooth sea, temperature 56°.

New South Wales.—Menindie, calm, fine, temperature 62°; Wentworth, N., clear, temperature 58°; Deniliquin, calm, fine, temperature 63°; Eden, S.W., 28, fine, little sea, temperature 59°; Moruya, S., 14, fine, rough sea, temperature 54°; Cape St. George, S., 56, fine, heavy sea, temperature 58°; Sydney, S., 20, cloudy, moderate sea, temperature 58°; Newcastle, S., 30, fine, heavy sea, temperature 58°; Port Macquarie, S.S.W., 56, fine, moderate sea, temperature 63°; Clarence River, S., 40, fine, smooth sea, temperature 65°; Dubbo, S.W., 14, fine, temperature 60°; Goulburn, calm, fine, temperature 54°.

STATE OF RIVERS.

Barwon, 39 feet 5 inches above summer level; **Brewarrina**, 31 feet 11 inches above summer level; **Godooga**, 9 feet 5 inches above summer level; **Gundagai**, 13 feet above summer level; **Louth**, 35 feet 9 inches above summer level; **Mogil Mogil**, over banks; **Mungindi**, 25 feet above summer level; **Namoi** over banks. **Murrumbidgee**: At Wagga, 20 feet 0 inches above summer level; at Hay, 12 feet 3 inches above summer level: at Balranald, 11 feet 5 inches above summer level. **Murray**: At Albury, 12 feet above summer level; at Euston: 10 feet 7 inches above summer level. **Darling**: At Wentworth, 13 feet 3 inches above summer level; at Pooncarie, 21 feet 6 inches above summer level; at Menindie, 24 feet 8 inches above summer level; at Wilcannia, 33 feet 4 inches above summer level; at Bourke, 36 feet 7 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 13.

Sun rises at 6.4, sets at 5.48; Moon, 5.52 p.m., 5.41 a.m.; Mercury, 5.39 a.m., 4.46 p.m.; Venus, 5.14 a.m., 4.9 p.m.; Mars, 8.32 a.m., 10.9 p.m.; Jupiter, 7.2 a.m., 7.24 p.m.; Saturn, 2.57 a.m., 12.57 p.m. Full Moon, 13th; New Moon, 27th.

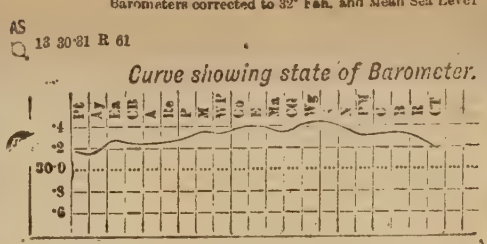
High water at Fort Denison, September 13: 8.6 a.m., 8.24 p.m.

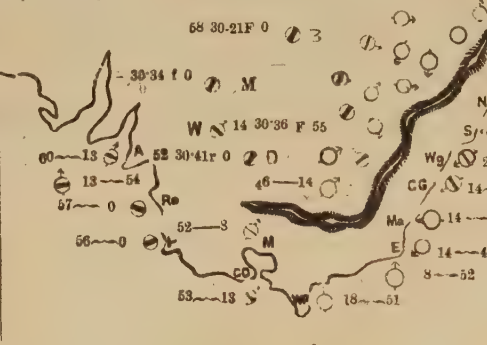
Albury	b	66	33	0
Armidale	n	42	33	0
Balranald	c	79	40	0
Bathurst	b	61	30	0
Bend'm'r	n	62	30	0
Bodalla ..	b	66	36	0
Bourke ..	c	76	48	0
Br'w'rrina	c	76	38	0
Bundarra	b	67	36	0
C'md'n H	g	66	53	0
C. St. Geo	c	78	62	0
Carcoar ..	b	54	36	0
Casino ..	b	73	43	0
Cassilis ..	n	55	37	0
Clarence	b	69	41	0
C'nd'b'lin	c	66	41	0
Cooma ..	n	69	23	0
Coonab'n	n	65	30	0
Cowra ..	b	68	39	0
Deniliq'n	c	74	32	0
Dubbo ..	b	68	35	0
Eden	b	59	43	0
Euston ..	c	75	46	0
Forbes ..	b	—	39	0
Gl'n Inn's	b	69	31	0
Goulburn	g	63	38	0
Grafton ..	b	78	45	0
Gulgong	b	60	34	0
Gunned'h	b	64	42	0
Hay	c	72	45	0
Inverell ..	b	63	39	0
Kiandra	n	59	19	0
Lismore	—	—	—	—
Maitland	g	64	40	0
Marsdens	n	70	43	0
Menindie	g	67	53	0
Molong ..	b	66	35	0
M'r'ng'r'll	b	68	36	0
Moree ..	b	77	44	0
Moruya ..	b	61	40	0
Moss Vale	—	—	—	—
Mt. Hope	c	66	51	0
M. Vict'ria	b	55	32	0
Mudgee	b	76	29	0
M'rr'm'bh	b	69	37	0
M'rr'r'ndl	b	57	37	0
Mus'lbr'k	b	60	33	0
Narrabri	b	66	42	0
Newcastle	b	62	48	0·09
Orange ..	b	53	32	0
Picton ..	n	60	32	0
P. M'q'rie	b	66	45	0
P. St'ph'n	c	63	44	0·12
Q'nbeyan	g	56	35	0
Quirindi	b	72	35	0
Singleton	c	63	46	0
SYDNEY ..	c	60	45	0·02
Tam'w'rth	b	64	38	0
Taralga ..	b	71	30	0
Taree	c	67	47	0·01
Tat'rfield	b	69	45	0
Wagga ..	b	68	35	0
Walcha ..	n	56	24	0
Walgett ..	c	68	43	0
Warrah ..	b	64	40	0
W'ntw'rth	c	73	51	0
W'll'ng'ng	c	63	47	0
Young ..	b	75	44	0

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to August 31st 37·992
Total Rainfall from January 1st to SEPTBR 13th 24·470
Barometers corrected to 32° Fah. and Mean Sea Level

T. storm Rain.
wind S. wind W
If it is CALM, the symbo
is used without the arrow
Smooth sea.
Heavy sea
Very heavy sea.





TIME BALL
Drops at 1 p.m. S.M.T
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35′ 37″ E

Barometers on E. Coast — risen about 0·15

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., 0 standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light variable winds and calm; risen barometers and smooth sea. Extremes of barometers and temperature: Geraldton, 30·21; Cossack, 29·92; Carnarvon, 73°; and Perth, 50°.

South Australia.—Cloudy and threatening south of Burra; scattered clouds and fine to Farina, with light variable winds and calms, fallen barometers and moderate sea. Rain recorded south of Beltana, except in S.E. parts; greatest west of Cape Borda; Cape Borda, 0·33; Streaky Bay, 0·25; Port Lincoln, 0·21; Wallaroo, 0·11; Adelaide, 0·10; and in places north of Burra, from 0·20 to 0·30 inches fallen. Extremes of barometers and temperature: On coast—Eucla, 30·28, and 62°; Port Augusta, 30·16, and M'Donnell Bay, 50°. No reports from Northern Territory.

Victoria.—Generally cloudy and gloomy, with light N. to E. winds and calms, slightly fallen barometers, and moderate sea. Frosty inland; squally at Wilson's Promontory; and the sea rising from S.W. at Cape Otway. No rain fallen. Extremes of barometers and temperature: Omeo, 30·36 and 47°; Hamilton, 30·23; and Ballarat, 57°.

Tasmania.—Generally fine, with light N.E. to N.W. winds, and moderate sea. Frosty in south parts. No rain fallen. Extremes of barometers and temperature: Southport, 30·30; Low Heads, 30·36 and 51°; Hobart, 46°.

New Zealand.—Generally fine; fresh N.W. wind in extreme north; S.E. winds in south parts; blowing strong at Wellington, where 0·43 inch rain has fallen. Barometers: Russell, 29·5; Wellington, 29·7; and Bluff, 30·0.

New South Wales.—Generally fine and cold, with light variable winds, risen barometers, and sea moderate, but still rough at Camden Haven. Frost on the range; cloudy in extreme west parts, with slightly fallen barometers; unsettled on the coast south of Sydney. During the last 48 hours light rain has fallen at a few stations between Sydney and the Manning River. Extremes of barometers and temperature at 9 a.m.: Wollongong, 30·42; Bourke, 30·21; Hay, 50°; and Cooma, 35°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level—Extra station: Lake Cudgellico, max. 55°, min. 35°, and dull; at 9 a.m., 30·406.

Queensland.—Generally fine, with light S. to S.E. winds, and moderate sea. No rain fallen. Extremes of barometers and temperature: Brisbane, 30·29; Cape Moreton, 62°; Townsville, 29·88 and Cooktown, 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 13, cloudy, smooth sea, temperature 60°; Cape Otway, S.S.E., 8, cloudy, smooth sea, temperature 60°; Melbourne, E.S.E., 13, cloudy, temperature 64°; Cape Schanck, E., 13, fine, but cloudy, smooth sea, temperature 58°; Wilson's Promontory, N.N.E., 18, fine and squally, smooth sea, temperature 58°; Lakes Entrance, E., fine, temperature 59°.

New South Wales.—Menindie, calm, fine and warm, temperature 64°; Wentworth, N., 14, overcast and dull, temperature 58°; Deniliquin, calm, fine and warm, temperature 64°; Eden, E., 14, fine, smooth sea, temperature 56°; Moruya, E.N.E., 28, fine, smooth sea, temperature 60°; Cape St. George, S., 14, fine, smooth sea, temperature 61°; Sydney, S.S.E., 9, fine, but cloudy, smooth sea, temperature 58°; Newcastle, S., fine, moderate sea, temperature 61°; Port Macquarie, S., 56, cloudy, smooth sea, temperature 68°; Clarence River, S., 20, fine, moderate sea, temperature 64°; Walgett, E.S.E., hazy, temperature 66°; Dubbo, N.E., 14, fine, temperature 62°; Goulburn, calm, fine, temperature 56°.

STATE OF RIVERS.

Barwon, 38 feet above summer level; Brewarrina, 32 feet 4 inches above summer level; Godooga, 9 feet above summer level; Gundagai, 10 feet above summer level; Louth, 35 feet 8 inches above summer level; Mogil Mogil, a banker; Mungindi, 25 feet 3 inches above summer level; Namoi, 27 feet above summer level; Tilpa, 38 feet 5 inches above summer level. Murrumbidgee: At Wagga, 15 feet 7 inches above summer level; at Hay, 11 feet 3 inches above summer level; at Balranald, 14 feet 6 inches above summer level. Murray: At Albury, 12 feet above summer level; at Euston: 10 feet 8 inches above summer level. Darling: At Wentworth, 13 feet 4 inches above summer level; at Pooncarie, 21 feet 7 inches above summer level; at Menindie, 24 feet 9 inches above summer level; at Wilcannia, 33 feet 6 inches above summer level; at Bourke, 36 feet 8 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 14.

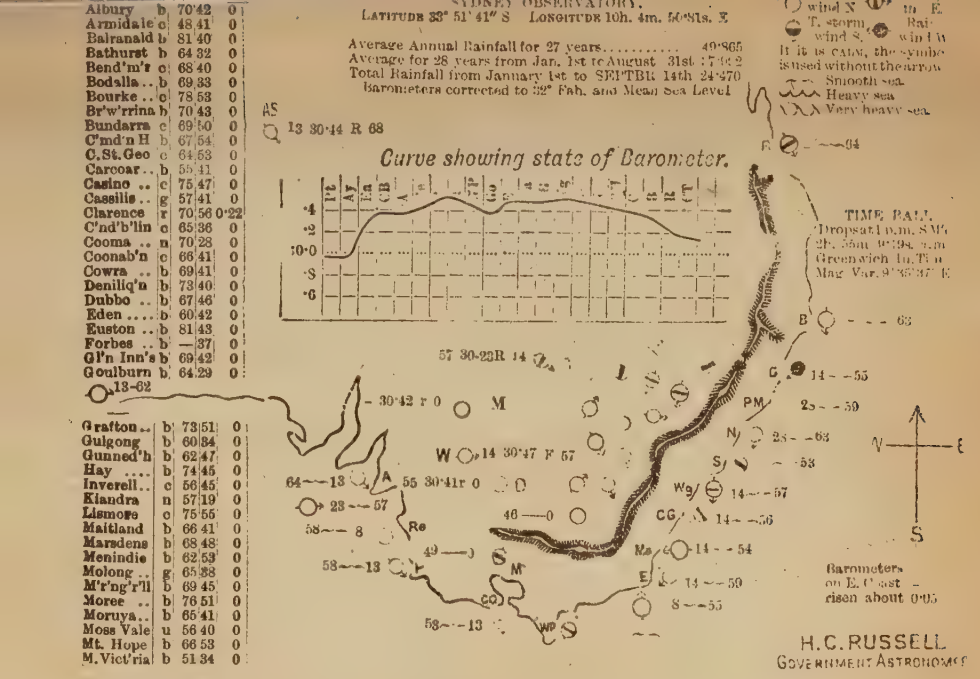
Sun rises at 6.2, sets at 5.49; Moon, 6.46 p.m., 6.14 [illegible]
Mercury, 5.41 a.m., 4.51 p.m.; Venus, 5.13 a.m., 4.11 p.m.
Mars, 8.30 a.m., 10.8 p.m.; Jupiter, 6.59 a.m., 7.21 [illegible]
Saturn, 2.53 a.m., 12.53 p.m. Full Moon, 18th; New Moon, 27th.
High water at Fort Denison, September 14: 8.41 a.m., 8.58 p.m.

Albury	b	70·42	0
Armidale	c	48·41	0
Balranald	b	81·40	0
Bathurst	b	64·32	0
Bend'm'r	c	68·40	0
Bodalla	b	69·33	0
Bourke	c	78·53	0
Br'w'rrina	b	70·43	0
Bundarra	c	69·50	0
C'md'n H	b	67·54	0
C.St.Geo	c	64·53	0
Carcoar	b	55·41	0
Casino	c	75·47	0
Cassilis	g	57·41	0
Clarence	r	70·56	0·22
C'nd'b'lin	c	65·36	0
Cooma	n	70·28	0
Coonab'n	c	66·41	0
Cowra	b	69·41	0
Deniliq'n	b	73·40	0
Dubbo	b	67·46	0
Eden	b	60·42	0
Euston	b	81·43	0
Forbes	b	—·37	0
Gl'n Inn's	b	69·42	0
Goulburn	b	64·29	0
Grafton	b	73·51	0
Gulgong	b	60·34	0
Gunned'h	b	62·47	0
Hay	b	74·45	0
Inverell	c	56·45	0
Kiandra	n	57·19	0
Lismore	c	75·55	0
Maitland	b	66·41	0
Marsdens	b	68·48	0
Menindie	b	62·53	0
Molong	g	65·28	0
M'r'ng'r'll	b	69·45	0
Moree	b	76·51	0
Moruya	b	65·41	0
Moss Vale	u	56·40	0
Mt. Hope	b	66·53	0
M.Vict'ria	b	51·34	0
Mudgee	b	73·32	0
M'r'm'bh	b	70·42	0
M'r'r'ndi	b	59·42	0
Mus'b'r'k	b	67·35	0
Narrabri	g	73·51	0
Newcastle	b	65·52	0
Orange	b	56·34	0
Picton	u	61·39	0
P. M'q'rie	b	67·48	0·18
P. St'ph'n	c	65·42	0
Q'nbeyan	b	56·39	0
Quirindi	b	71·30	0
Singleton	b	58·46	0
SYDNEY	g	60·48	0
Tamw'rth	g	66·48	0
Taralga	b	68·37	0
Taree	b	70·52	0
T'nt'rfield	c	68·44	0
Wagga	b	71·45	0
Walcha	c	78·38	0
Walgett	g	70·53	0
Warrah	b	69·40	0
W'ntw'rth	b	71·52	0
W'll'ng'ng	g	67·50	0
Young	h	79·38	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·8s. E

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to August 31st : 7·462
Total Rainfall from January 1st to SEPTBR 14th 24·470
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with N. to E. winds and smooth sea; rough sea at Esperance Bay; no rain fallen. Extremes of barometers and temperature: Albany, 29·89; Esperance Bay, 30·17 and 54°; Carnarvon, 72°.

South Australia.—Generally fine, with light easterly winds, risen barometers, and smooth sea; scattered clouds west of Cape Borda; foggy at Streaky Bay. Extremes of barometers and temperature: On coast—M'Donnell Bay, 30·42 and 56°; Eucla, 30·36; and Adelaide, 64°. In Northern Territory: 30·14 and 82° at Daly Waters; 29·97 and 84° at Port Darwin.

Victoria.—Generally fine, with clouds in places, light N.E. to S.E. winds, risen barometers, and smooth sea. Foggy at Cape Otway, Melbourne, and Lakes Entrance. Extremes of barometers and temperature: Melbourne, 30·48; Lakes Entrance, 48°; Echuca, 30·36; and Horsham, 58°.

Tasmania.—Generally fine, but cloudy, with light variable winds and calm, risen barometers, and smooth sea. Extremes of barometers and temperature: Low Heads, 30·47 and 46°; Southport, 30·42 and 52°.

New Zealand.—Generally fine; strong S.E. to S.W. winds in North Island. Squally, with hail, and 48 points rain fallen at Wellington. Rough sea at Gisborne. Barometers: Russell, 29·8; Gisborne, 29·9; Wellington, 30·0; and Bluff, 30·2.

New South Wales.—Generally fine and clear, with light N.E. to S.E. winds and calms, risen barometers, and moderate sea. Cloudy and dull in places, principally in N.W. parts. Heavy frost at Kiandra. Light rain fallen at a few stations in north coast districts, and still showery at Clarence Heads. Rivers falling slowly. Extremes of barometers and temperature, at 9 a.m.: Wollongong, 30·51; Forbes and Bourke, 30·23; Newcastle, 63°; Cooma, 35°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level, at 9 a.m., 30·477. Extra stations: Lake Cudgellico, max. 50°, min. 47°, dull and cloudy. For further particulars see map.

Queensland.—Generally fine, with light S. to S.E. winds and moderate sea. Rainfall: Rockhampton, 0·03 inch. Extremes of barometers and temperature: Brisbane, 30·34; Townsville, 29·88 and 61°; and Cooktown, 87°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 18, fine, smooth sea, temperature 60°; Cape Otway, S.E., 13, fine, smooth sea, temperature 57°; Melbourne, E.N.E., 13, fine, temperature 57°; Cape Schanck, S.E., 13, fine, but cloudy, smooth sea, temperature 56°; Wilson's Promontory, N.E., 13, fine, smooth sea, temperature 63°; Lakes Entrance, S.E., 8, cloudy and misty, temperature 57°.

New South Wales.—Menindie, W., 14, fine, temperature 62°; Wentworth, S.E., 14, clear and warm, temperature 64°; Deniliquin, calm, clear, and warm, temperature 68°; Eden, N.E., 14, fine, smooth sea, temperature 57°; Cape St. George, S., 14, fine, moderate sea, temperature 61°; Sydney, S.E., 12, fine, smooth sea, temperature 59°; Newcastle, S., 14, fine, moderate sea, temperature 62°; Port Macquarie, S.S.E., 56, showery, moderate sea, temperature 69°; Clarence River, S.W., 28, showery, moderate sea, temperature 62°; Dubbo, W., 14, fine, temperature 65°; Goulburn, N.E., 14, fine, temperature 57°.

STATE OF RIVERS.

Barwon, 38 feet 2 inches above summer level: Brewarrina, 32 feet 8 inches above summer level; Godooga, 8 feet 6 inches above summer level; Gundagai, 9 feet above summer level; Louth, 35 feet 7 inches above summer level; Mogil Mogil, a banker; Mungindi, 26 feet above summer level; Namoi, 26 feet 4 inches above summer level; Tilpa, 38 feet 5 inches above summer level. Murrumbidgee: At Wagga, 13 feet 9 inches above summer level; at Hay, 10 feet 10 inches above summer level; at Balranald, 11 feet 6 inches above summer level. Murray: At Albury, 11 feet above summer level; at Euston, 10 feet 9 inches above summer level. Darling: At Wentworth, 13 feet 6 inches above summer level; at Pooncarie, 21 feet 7 inches above summer level; at Menindie, 24 feet 10 inches above summer level; at Bourke, 36 feet 10 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 15.

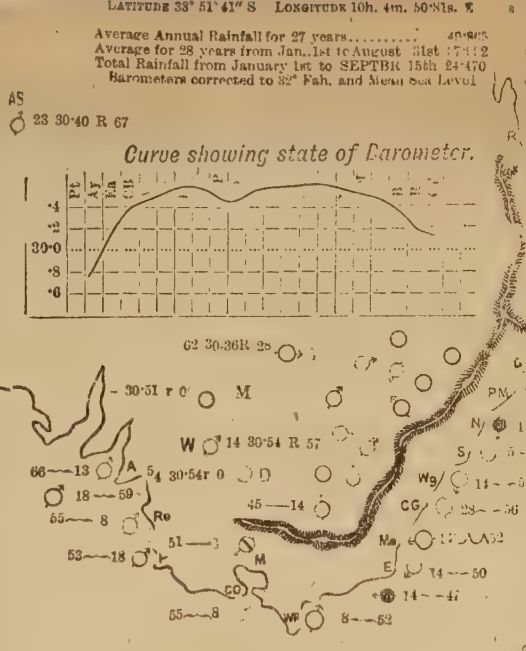
Sun rises at 6.1, sets at 5.50; Moon, 7.40 p.m., 6.45 a.m.; Mercury, 5.42 a.m., 4.56 p.m.; Venus, 5.12 a.m., 4.13 p.m.; Mars, 8.28 a.m., 10.7 p.m.; Jupiter, 6.56 a.m., 7.19 p.m.; Saturn, 2.49 a.m., 12.49 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 15: 9.15 a.m., 9.31 p.m

Armidale	b	48	44	0·04
Balranald	b	34	36	0
Bathurst	b	62	30	0
Bend'm'r	g	60	41	0
Bodalla	b	68	31	0
Bourke	b	75	52	0
Br'w'rrina	b	72	42	0
Bundarra	b	72	50	0
C'md'n H	c	68	54	0·35
C. St. Geo	b	63	48	0
Carcoar	b	54	35	0
Casino	u	69	45	0·16
Cassilis	c	59	48	0
Clarence	o	65	58	0·40
C'nd'b'lin	b	68	37	0
Cooma	n	71	22	0
Coonab'n	b	70	37	0
Cowra	b	73	46	0
Deniliq'n	b	73	38	0
Dubbo	b	73	38	0
Eden	b	58	42	0
Euston	b	80	38	0
Forbes	b	—	40	0
Gl'n Inn's	u	67	45	0
Goulburn	f	63	29	0
Grafton	e	67	51	0
Gulgong	b	62	32	0
Gunned'h	b	68	43	0
Hay	b	75	46	0
Inverell	b	65	40	0
Kiandra	n	55	18	0
Lismore	b	69	49	0·15
Maitland	b	65	46	0
Marsdens	b	68	46	0
Menindie	b	69	50	0
Molong	b	70	36	0
M'r'ng'r'll	b	69	41	0
Moree	b	77	48	0
Moruya	h	66	38	0
Moss Vale	n	56	31	0
Mt. Hope	b	68	55	0
M. Vict'ria	b	54	32	0
Mudgee	b	75	37	0
M'rr'm'bh	b	71	40	0
M'rr'r'ndi	b	62	45	0
Mus'br'k	b	69	42	0
Narrabri	b	72	44	0
Newcastle	r	66	58	0·01
Orange	b	56	32	0
Picton	h	63	34	0
P. M'q'rie	c	67	50	0·43
P. St'ph'n	c	67	41	0·23
Q'nbeyan	b	59	36	0
Quirindi	b	75	45	0
Singleton	b	61	52	0
Sydney	h	63	45	0
Tamw'rth	—	—	—	—
Taralga	f	69	29	0
Taree	b	70	53	0·20
Tnt'rfield	c	60	49	0
Wagga	b	71	38	0
Walcha	r	67	34	0
Walgett	b	68	51	0
Warrah	b	67	45	0
W'ntw'rth	b	77	46	0
W'll'ng'ng	b	67	46	0
Young	b	80	46	0

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years..... 40·863
Average for 28 years from Jan. 1st to August 31st : 7·412
Total Rainfall from January 1st to SEPTBR 15th 24·470
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: At, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and threatening, with fresh S. to W. winds and moderate sea; squally with rough sea at Carnarvon; showery at Albany. Rainfall: Perth, 1·02; Geraldton, 0·68; Albany, 0·27. Extremes of barometers and temperature: Geraldton, 30·16; Carnarvon, 74°; Esperance Bay, 29·77; and Perth, 57°.

South Australia.—Generally fine and pleasant, with light N.E. to N. winds, fallen barometers, and moderate sea; no rain fallen. Extremes of barometers and temperature: On coast—M'Donnell Bay, 30·46 and 53°; Eucla, 30·00 and 74. In Northern Territory: Daly Waters; 30·12 and 81°; Port Darwin, 29·92 and 85°.

Victoria.—Generally fine, with light W. to E. winds, risen barometers, and smooth sea; foggy at Melbourne and Ballarat, passing showers in N.E. parts. Extremes of barometers and temperature: Melbourne, 30·56; Hamilton, 30·44 and 44°; Horsham, 58°.

Tasmania.—Generally fine, but cloudy, with light variable winds and calms, steady barometers, and smooth sea; misty at Low Head. Extremes of barometers and temperature: Low Head, 30·53 and 48°; Falmouth, 30·45 and 53°.

New Zealand.—Generally fine and clear, with light E. to N.E. winds and calm. Barometers: Russell, 30·1; Wellington, 30·0; and Bluff, 29·9.

New South Wales.—Generally fine and clear, with light N.E. to S.E. winds and calms, high barometers, and moderate to rough sea; cloudy in north coast districts, with rain in places; severe frosts on the range; rivers falling slowly; during the last 24 hours light rain fallen on and near the coast between the Hunter and Richmond Rivers. Extremes of barometers and temperature, at 9 a.m.: Sydney and Wollongong, 30·57; Forbes, 30.34; Bourke and Clarence, 62°; and Cooma, 37°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level, at 9 a.m., 30·570. Extra stations: Lake Cudgellico, max. 64°, min. 45°, and fine. For further particulars see map.

Queensland.—Generally cloudy and threatening, with S.E. to S. winds and moderate sea. Rainfall: Brisbane 0·12, Rockhampton 0·22, and Townsville 0·36. Extremes of barometers and temperature: Brisbane, 30·33 and 62°; Townsville, 29·83; and Cooktown, 82°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 18, fine, smooth sea, temperature 63°; Cape Otway, E.S.E., 18, fine, smooth sea, temperature 58°; Melbourne, S.S.W., 13, fine, temperature 61°; Cape Schanck, E., 13, fine, but cloudy, smooth sea, temperature 55°; Wilson's Promontory, E.N.E., 8, cloudy, smooth sea, temperature 58°; Lakes Entrance, S.E., 13, fine, but cloudy, temperature 60°.

New South Wales.—Menindie, N.W., 14, fine, temperature 65°; Wentworth, N., 1, fine, temperature 64°; Deniliquin, calm, fine, temperature 69°; Eden, N.E., 14, fine, smooth sea, temperature 58°; Moruya, N.E., 32, fine, rough sea; Cape St. George, N.E., 14, fine, moderate sea, temperature 60°; Sydney, E., 9, fine and hazy, smooth sea, temperature 50°; Newcastle, S.S.W., 1, cloudy, moderate sea, temperature 60°; Port Macquarie, S.E., 28, fine, moderate sea, temperature 68°; Clarence River, S.S.E., 14, dull, temperature 66°; Walgett, E., 1, fine, temperature 67°; Dubbo, W., 1, fine, temperature 64°; Goulburn, E.N.E., 1, fine, temperature 58°.

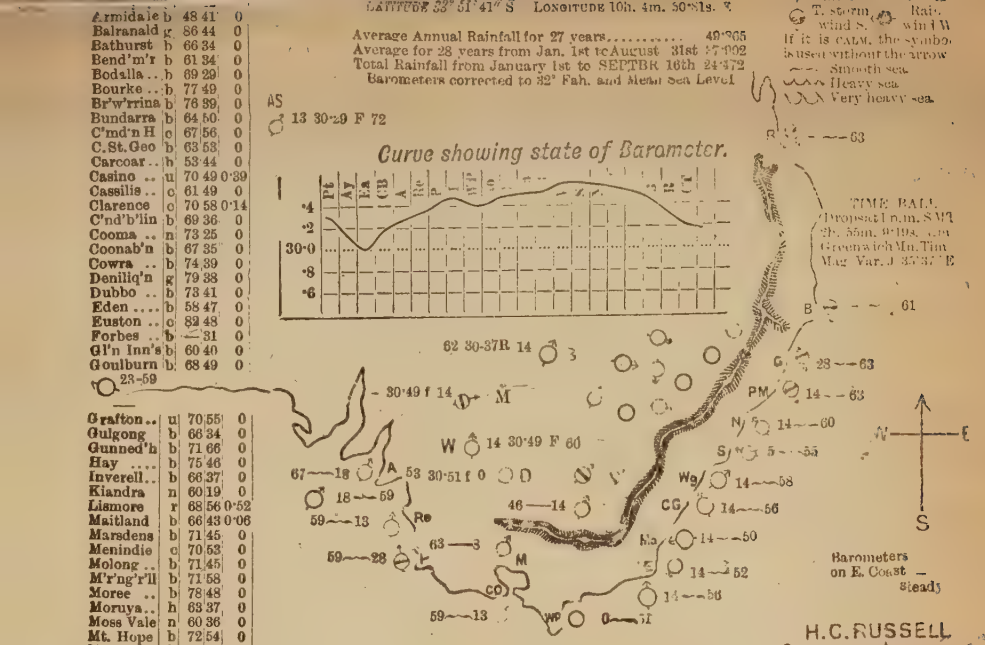
STATE OF RIVERS.

Barwon, 37 feet 4 inches above summer level; Brewarrina, 32 feet above summer level; Godooga, 8 feet above summer level; Gundagai, 8 feet above summer level; Louth, 35 feet 6 inches above summer level; Mogil Mogil, a banker; Murrumbidgee, 25 feet 6 inches above summer level; Namoi, 25 feet 9 inches above summer level; Tilpa, 38 feet 4 inches above summer level. Murrumbidgee: At Wagga, 11 feet above summer level; at Hay, 10 feet 8 inches above summer level; at Balranald, 11 feet 6 inches above summer level. Murray: At Albury, 11 feet above summer level; at Euston, 10 feet 10 inches above summer level. Darling: At Wentworth, 13 feet 8 inches above summer level; at Pooncarie, 21 feet 8 inches above summer level; at Menindie, 24 feet 10 inches above summer level; at Wilcannia, 33 feet 8 inches; at Bourke, 37 feet above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 16.

Sun rises at 6.0, sets at 5.51; Moon, 8.34 p.m., 7.18 a.m.; Mercury, 5.43 a.m., 5.1 p.m.; Venus, 5.12 a.m., 4.15 p.m.; Mars, 8.26 a.m., 10.6 p.m.; Jupiter, 6.53 a.m., 7.18 p.m.; Saturn, 2.46 a.m., 12.46 p.m. Full Moon, 13th; New Moon, 27th.
High water at Fort Denison, September 16: 9.47 a.m., 10.4 p.m.

Armidale	b	48	41	0
Balranald	g	86	44	0
Bathurst	b	66	34	0
Bend'm'r	b	61	34	0
Bodalla ..	b	69	29	0
Bourke ..	b	77	49	0
Br'w'rrina	b	76	39	0
Bundarra	b	64	50	0
C'md'n H	c	67	56	0
C. St. Geo	b	63	53	0
Carcoar ..	b	53	44	0
Casino ..	u	70	49	0·39
Cassilis ..	c	61	49	0
Clarence	c	70	58	0·14
C'nd'b'lin	b	69	36	0
Cooma ..	n	73	25	0
Coonab'n	b	67	35	0
Cowra ..	b	74	39	0
Deniliq'n	g	79	38	0
Dubbo ..	b	73	41	0
Eden	b	58	47	0
Euston ..	c	82	48	0
Forbes ..	b	—	31	0
Gl'n Inn's	b	60	40	0
Goulburn	b	68	49	0
Grafton ..	u	70	55	0
Gulgong	b	66	34	0
Gunned'h	b	71	66	0
Hay	b	75	46	0
Inverell ..	b	66	37	0
Kiandra	n	60	19	0
Lismore	r	68	56	0·52
Maitland	b	66	43	0·06
Marsdens	b	71	45	0
Menindie	c	70	53	0
Molong ..	b	71	45	0
M'r'ng'r'll	b	71	58	0
Moree ..	b	78	48	0
Moruya ..	h	63	37	0
Moss Vale	n	60	36	0
Mt. Hope	b	72	54	0
M. Vict'ria	b	60	38	0
Mudgee	b	75	47	0
M'rr'm'bh	b	75	39	0
M'rr'm'ndi	b	63	43	0
Mus'br'k	b	68	36	0
Narrabri	b	71	36	0
Newcastle	b	63	54	0
Orange ..	b	57	47	0
Picton ..	b	64	34	0
P. M'q'rie	c	67	53	0
P. St'ph'n	h	67	43	0
Q'nbeyan	b	57	38	0
Quirindi	b	75	43	0
Singleton	b	58	46	0
SYDNEY ..	h	62	48	0
Tamw'rth	b	65	35	0
Taralga ..	n	73	30	0
Taree	c	71	51	0
T'nt'rfield	b	58	47	0
Wagga ..	b	72	37	0
Walcha ..	o	75	31	0
Walgett ..	b	69	49	0
Warrah ..	b	69	40	0
W'ntw'rth	b	79	50	0
W'll'ng'ng	b	71	41	0
Young ..	b	83	36	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; l, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; 'Rn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland, M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In northern parts fine, with fresh E. to S.E. winds; in south gloomy and threatening, with S.E. to S.W. winds. Smooth to moderate sea along west coast, rough in south. Rainfall: Perth, 0·13; Esperance Bay, 0·45. Extremes of barometers and temperature: Geraldton, 30·32; Ashburton, 72°; Cossack, 29·99; and Perth, 54°.

South Australia.—Generally, fine, warm, and dusty, with fallen barometers, light N.E. to W. winds, and moderate sea. Stormy at Farina. Yesterday the temperature in the shade at Eucla reached 89°, and during the night lightning was seen all round. Extremes of barometers and temperature: On coast—M'Donnell Bay, 30·35 and 57°; Eucla, 29·96; and Adelaide, 67°. In Northern Territory—Daly Waters, 30·09 and 78°; Port Darwin, 29·92 and 78°.

Victoria.—Generally fine, with light N. to E. winds, fallen barometers, and smooth sea. No rain fallen, but heavy dew in places. Extremes of barometers and temperature: Omeo, 30·50; Portland, 30·34; Lakes' Entrance, 46°; and Melbourne, 63°.

Tasmania.—Generally fine, with light and variable winds, fallen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: Low Heads, 30·51; Southport, 30·35; Circular Heads, 51°; and Hobart, 54°.

New Zealand.—Generally fine, with light S. to W. winds and calm. Passing showers, and fresh west wind on West Coast. Barometers: Generally 30·1.

New South Wales.—Generally fine and clear, with light N.E. to S.E. winds, high and steady barometers, mild temperature, and moderate sea. Frosty on the range. During the last 24 hours light rain has fallen on the Richmond and Hunter Rivers; heaviest at Lismore, where it was still showery at 9 a.m., and over half-inch has fallen. Rivers are falling slowly. Extremes of barometers and temperature, at 9 a.m.: Wollongong, 30·57; Forbes, 30.29; Hay, 64°; and Cooma, 39°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level, at 9 a.m., 30·558. Extra stations: Lake Cudgellico, max. 75°, min. 41°, fine and clear. For further particulars see map.

Queensland.—Generally cloudy and threatening, with S.E. to S.W. winds, fallen barometers, and moderate sea. Rough sea at Cape Moreton. Rainfall: Brisbane 0·47, Cape Moreton 0·10, Rockhampton 0·28, and Cooktown 0·06. Extremes of barometers and temperature: Brisbane, 30·38 and 61°; Townsville, 29·86; and Cooktown, 75°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N. 13, fine, smooth sea, temperature 73°; Cape Otway, E., 13, fine, smooth sea temperature 67°; Melbourne, N., 13, fine, temperature 72°; Cape Schanck, N., 13, fine, but cloudy, smooth sea, temperature 60°; Wilson's Promontory, N.E., 13, fine, smooth sea, temperature 66°.

New South Wales.—Menindie, W., 14, fine, temperature 66°; Wentworth, N., 1, fine, temperature 65°; Deniliquin, N., 1, fine, temperature 68°; Eden, E., 14, fine, smooth sea, temperature 66°; Moruya, N.E., 14, fine, moderate, temperature, 65°; Cape St. George, N.E., 14, fine, moderate sea, temperature 63°; Sydney, E.N.E., 16, fine and hazy, smooth sea, temperature 63°; Newcastle, E., 1, smooth sea, temperature 65°; Port Macquarie, S.E., 28, fine, moderate temperature 70°; Clarence River, S., 1, cloudy, moderate, temperature 68°; Walgett, E., 1, fine, temperature 68°; Dubbo, N.E., 14, fine, temperature 64°; Goulburn, calm fine, 58°.

STATE OF RIVERS.

Barwon, 36 feet 6 inches above summer level; Brewarrina, 31 feet 6 inches above summer level; Godooga, 7 feet 8 inches above summer level; Gundagai, 7 feet 6 inches above summer level; Louth, 35 feet 6 inches above summer level; Mogil Mogil, a banker; Mungindi, 25 feet above summer level; Namoi, 24 feet 10 inches above summer level; Tilpa, 38 feet 3 inches above summer level. Murrumbidgee: At Wagga, 9 feet 6 inches above summer level; at Hay, 10 feet 8 inches above summer level; at Balranald, 11 feet 6 inches above summer level. Murray: At Albury, 10 feet 10 inches above summer level; at Euston, 11 feet above summer level. Darling: At Wentworth, 13 feet 7 inches above summer level; at Pooncarie, 21 feet 9 inches above summer level; at Menindie, 24 feet 11 inches above summer level; at Wilcannia, 33 feet 10 inches above summer level; at Bourke, 37 feet 1 inch above summer level.

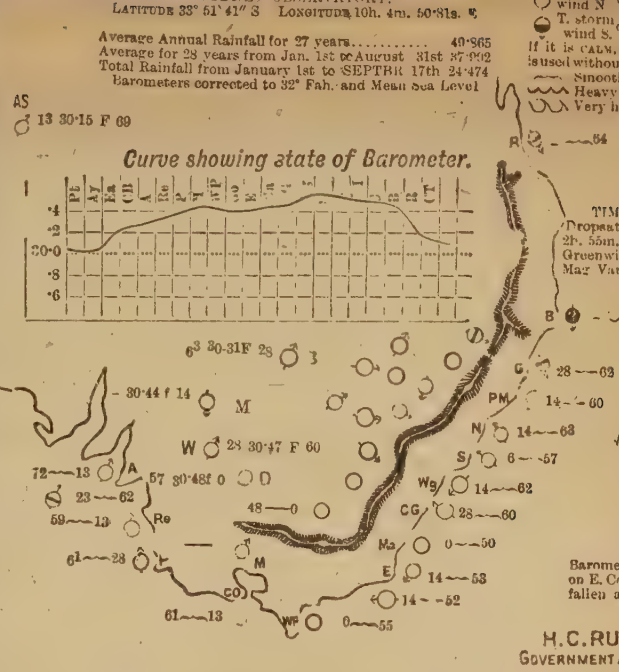
ASTRONOMICAL MEMORANDA FOR SEPTEMBER 17.

Sun rises at 5.58, sets at 5.52; Moon, 9.50 p.m., 7.52 a.m.; Mercury, 5.44 a.m., 5.6 p.m.; Venus, 5.11 a.m., 4.17 p.m.; Mars, 8.24 a.m., 10.5 p.m.; Jupiter, 6.50 a.m., 7.14 p.m.; Saturn, 2.42 a.m., 12.42 p.m. Full Moon, 13th; New Moon, 27th. High water at Fort Denison, September 17: 10.20 a.m., 10.38 p.m.

Armidale	b	49	40	0
Balranald	b	81	40	0
Bathurst	b	68	33	0
Bend'm'r	b	60	34	0
Bodalla	b	71	32	0
Bourke	b	77	51	0
Br'w'rrina	b	76	40	0
Bundarra	b	74	51	0
C'md'n H	b	63	55	0
C. St. Geo	b	65	50	0
Carcoar	b	59	45	0
Casino	c	72	53	0·06
Cassilis	b	62	41	0
Clarence	c	71	58	0·80
C'nd'b'ra	b	71	34	0
Cooma	n	76	27	0
Coonab'n	b	70	33	0
Cowra	b	75	41	0
Deniliq'n	b	80	48	0
Dubbo	b	74	40	0
Eden	b	60	43	0
Euston	b	82	47	0
Forbes	b	—	38	0
Gl'n Inn's	o	70	41	0
Goulburn	b	71	29	0
Grafton	c	73	53	0·43
Gulgong	b	65	38	0
Gunned'h	b	71	41	0
Hay	b	77	45	0
Inverell	b	67	40	0
Kiandra	n	65	20	0
Lismore	b	70	57	0·14
Maitland	b	67	44	0
Marsdens	b	73	46	0
Menindie	b	71	52	0
Molong	b	73	45	0
M'r'ng'r'll	b	72	42	0
Moree	b	80	45	0
Moruya	b	65	40	0
Moss Vale	h	60	46	0
Mt. Hope	b	70	52	0
M. Vict'ria	b	62	35	0
Mudgee	b	80	37	0
M'rr'm'bh	b	75	41	0
M'rr'ndi	b	64	43	0
Mus'lbr'k	b	71	33	0
Narrabri	h	71	40	0
Newcastle	b	67	51	0
Orange	b	59	34	0
Picton	b	66	35	0
P. M'q'rie	b	67	48	0
P. St'ph'n	b	68	43	0
Q'nbeyan	b	61	41	0
Quirindi	b	81	42	0
Singleton	b	58	46	0
Sydney	b	65	48	0
Tamw'rth	b	70	35	0
Taralga	b	70	32	0
Taree	b	70	50	0
T'ot'nfield	g	61	47	0
Wagga	b	74	41	0
Walcha	b	57	29	0
Walgett	b	70	50	0
Warrah	b	70	40	0
W'ntw'rth	b	79	50	0
W'll'ng'ng	b	73	53	0
Young	b	82	38	0

Latitude 33° 51′ 41″ S Longitude 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to August 31st 37·962
Total Rainfall from January 1st to SEPTBR 17th 24·474
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light south to east winds, risen barometers, and smooth sea. Extremes of barometers and temperature: Perth, 30·25; Cossack, 29·92; Carnarvon, 73·; and Esperance Bay, 56·.

South Australia.—Cloudy and gloomy west of Adelaide; more or less clouded between Port Pirie and Strangways; fine and warm over the rest of the colony, with fresh N.E. to N. winds, fallen barometers, and smooth sea; no rain fallen. Extremes of barometers and temperature: on coast—M'Donnell Bay, 30·35; Eucla, 30·01 and 58·; Adelaide, 72·. In Northern Territory—Daly Waters, 30·04 and 78·; Port Darwin, 29·8[illegible] and 83·.

Victoria.—Generally fine and warm, with light N. to E. winds and calms, fallen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: Omeo, 30·46; Portland, 30·34; Melbourne, 63·; and Hamilton, 47·.

Tasmania.—Generally fine but cloudy, with light and variable winds and calms, steady barometers, and smooth sea. Foggy at Low Heads. Extremes of barometers and temperature: Low Heads, 30·43 and 49·; Southport, 30·33 and 67·.

New Zealand.—Generally cloudy, with S.W. to N.W. winds, Showery at Bluff and Taranaki, and strong S.W. wind blowing at the latter place. Barometers: Russell, 30·2; Wellington, 29·9; and Bluff, 29·8.

New South Wales.—Generally fine and clear, with light N.E. to S. winds and calms, falling barometers, and smooth sea. Frosty on the range. Cloudy in places in north-east parts. During the last 24 hours light rain has fallen on the Clarence and Richmond Rivers. Extremes of barometers and temperature, at 9 a.m.: Sydney, 30·518; Bourke, 30·31: Newcastle and Bourke, 63·; Mt. Victoria, 42·. Extra station: Lake Cudgellico, max. 72·, min. 45·, fine and cool. Rivers rising slowly. For further particulars see map.

Queensland.—Generally overcast and threatening, with fallen barometers, light S.E. to S.W. winds, and moderate sea. Rough sea off Cape Moreton. Misty rain at Brisbane and Cooktown. Rainfall: Brisbane, 0·39; Townsville, 0·35; Cooktown, 0·02; and Rockhampton, 0·01. Extremes of barometers and temperature: Brisbane, 30·44; Cape Moreton, 63·; Cooktown, 81.; and Townsville, 29·83.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E. 13, fine, smooth sea, temperature 69·; Cape Otway, E.S.E., 13, fine, smooth sea, temperature 68·; Melbourne, S., 13, fine, temperature 72·; Cape Schanck, calm, fine, but cloudy, smooth sea, temperature 62·; Wilson's Promontory, W., 8, fine and hazy, smooth sea, temperature 65·; Lake's Entrance, E., 8, fine, temperature, 68·.

New South Wales.—Menindie, N., fine, temperature 68·; Wentworth, calm, fine, temperature 66·; Deniliquin, calm, fine, temperature 70·; Eden, E.N.E., 14, fine, smooth sea, temperature 61·; Moruya, N.N.E., 23, fine, smooth sea, temperature, 62·; Cape St. George, N.E., 14, fine, smooth sea, temperature 62·; Sydney, E.N.E., 20, fine and hazy, smooth sea, temperature 63·; Newcastle, N.E., 14, fine, smooth sea, temperature 65·; Port Macquarie, E.S.E., 14, cloudy, smooth sea, temperature 72·; Clarence River, E., 28, cloudy, moderate sea, temperature 69·; Walgett, E., 14, fine, temperature 70·; Dubbo, E., 14, fine, temperature 64·; Goulburn, calm, fine, temperature, 58·.

STATE OF RIVERS.

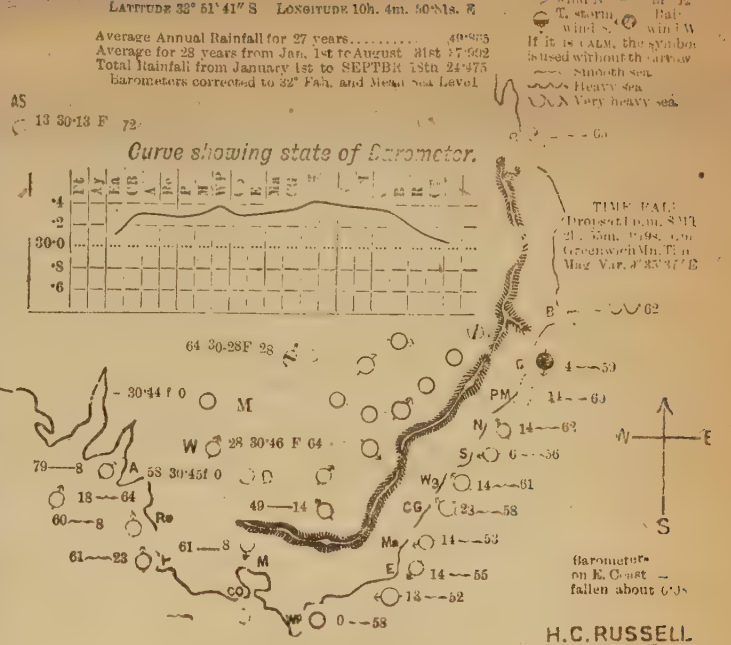
Barwon, 36 feet above summer level; Brewarrina, 30 feet 6 inches above summer level; Godooga, 7 feet 3 inches above summer level; Gundagai, 7 feet above summer level; Louth, 35 feet 7 inches above summer level; Mogil Mogil, 27 feet above summer level; Mungindi, 24 feet 10 inches above summer level; Namoi, 24 feet above summer level; Tilpa, 38 feet 2 inches above summer level. Murrumbidgee: At Wagga, 8 feet 9 inches above summer level; at Hay, 10 feet 11 inches above summer level; at Balranald, 11 feet 6 inches above summer level. Murray: At Albury, 9 feet above summer level; at Euston, 11 feet above summer level. Darling: At Wentworth, 13 feet 7 inches above summer level; at Pooncarie, 21 feet 9 inches above summer level; at Menindie, 24 feet 1 inch above summer level; at Wilcannia, 33 feet 11 inches above summer level; at Walgett, 37 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 18.

Sun rises at 5.57, sets at 5.53; Moon, 10.27 p.m., 8.23 a.m.; Mercury, 5.45 a.m., 5.11 p.m.; Venus, 5.11 a.m., 4.19 p.m.; Mars, 8.22 a.m., 10.5 p.m.; Jupiter, 6.47 a.m., 7.11 p.m.; Saturn, 2.39 a.m., 12.39 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 18: 10.55 a.m., 11.14 p.m.

Armidale	b	51 42	0
Balranald	b	88 45	0
Bathurst	b	67 35	0
Bend'm'r	b	62 41	0
Bodalla ..	h	75 38	0
Bourke ..	c	81 51	0
Br'w'rrina	b	79 42	0
Bundarra	b	72 48	0
C'md'n H	b	70 57	0·23
C. St. Geo	b	67 55	0
Carcoar ..	b	60 51	0
Casino ..	c	70 46	0·05
Cassilis ..	b	62 42	0
Clarence	r	70 58	0·14
C'nd'b'lin	b	63 35	0
Cooma ..	n	76 27	0
Coonab'n	h	72 44	0
Cowra ..	b	77 45	0
Deniliq'n	b	82 40	0
Dubbo ..	h	74 41	0
Eden	b	61 43	0
Euston ..	b	89 50	0
Forbes ..	b	— 37	0
Gl'n Inn's	g	64 42	0
Goulburn	b	72 30	0
Grafton ..	u	80 55	0·22
Gulgong	b	65 38	0
Gunned'h	b	71 50	0
Hay	b	80 45	0
Inverell ..	b	68 38	0
Kiandra	n	66 21	0
Lismore	c	74 54	0
Maitland	b	68 45	0
Marsdens	b	74 47	0
Menindie	b	73 60	0
Molong ..	b	75 36	0
M'r'ng'r'll	b	74 46	0
Moree ..	b	81 47	0
Moruya ..	b	67 40	0
Moss Vale	b	62 39	0
Mt. Hope	b	75 56	0
M. Vict'ria	b	62 35	0
Mudgee	b	80 38	0
M'rr'm'bh	b	78 42	0
M'rr'r'ndi	b	64 45	0
Mus'lbr'k	b	70 38	0
Narrabri	b	73 51	0
Newcastle	b	69 56	0
Orange ..	b	59 36	0
Picton ..	b	66 36	0
P. M'q'rie	b	70 50	0·61
P. St'ph'n	b	70 57	0
Q'nbeyan	b	69 50	0
Quirindi	b	70 44	0
Singleton	b	64 49	0
Sydney ..	h	66 48	0
Tamw'rth	—	—	0
Taralga ..	b	76 34	0
Taree	b	73 52	0
Tnt'rfield	c	62 47	0
Wagga ..	b	76 43	0
Walcha ..	b	59 39	0
Walgett ..	b	71 53	0
Warrah ..	b	70 45	0
W'ntw'rth	b	81 50	0
W'll'ng'ng	b	73 49	0
Young ..	b	87 39	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: P, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Ie, Hobe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go. Gabo; E, Eden; Mn, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Lake Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light N.E. to S.E. winds and calms, and moderate sea. Rough sea at Albany. Extremes of barometers and temperature: Cossack, 29·91; Perth, 30·08 and 52°; Ashburton, 74°.

South Australia.—Generally fine and warm, with light N. to N.E. winds, risen barometers, and smooth sea; scattered clouds north of Hergott. Extremes of barometers and temperature:—M'Donnell Bay, 30·34; Eucla, 30·13; Adelaide, 79°; and Eucla, 59· In Northern Territory—Daly Waters, 30·01 and 81°; Port Darwin, 29·88 and 86°.

Victoria.—Generally fine and warm, with light variable winds and calms, falling barometers, and smooth sea. No rain fallen, but heavy dew at Melbourne. Extremes of barometers and temperature: Omeo, 30·40; Portland, 30·29; Cape Otway, 63°; and Lakes Entrance, 49°.

Tasmania.—Generally fine, with light N. to W. winds, fallen barometers, and moderate sea. Foggy at Circular and Low Heads, squally from N., and sultry at Hobart. Extremes of barometers and temperature: Low Heads, 30·35 and 49°; Southport, 30·16 and 68°.

New South Wales.—Generally fine and clear, with light variable winds and calms, falling barometers, and smooth sea. Frosty on the range. Cloudy in places in north parts, and showery at Clarence. During the last 24 hours light rain has fallen in the district between the Clarence and Richmond Rivers, and at Port Macquarie; heaviest at the latter place, where 0·61 inch fell. Extremes of barometers and temperature, at 9 a.m.: Wentworth, 30·46; Forbes, 30·22; Hay, 65°; and Cooma, 35°. Reading of standard barometer at Sydney corrected to 32° Fahr., and mean sea level, at 9 a.m., 30·426. Extra station: Lake Cudgellico, max. 75°, min. 46°, and fine. For further particulars see map.

Queensland.—Generally overcast and threatening rain, with light S.E. to S.W. winds, fallen barometers, and moderate sea. Rough sea off Cape Moreton. Rainfall: Brisbane and Cooktown, 0·10; Cape Moreton, 0·14; and Rockhampton, 0·06. Extremes of barometers and temperature: Brisbane, 30·36 and 62°; Townsville, 29·86; and Cooktown, 30°.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, E.N.E., variable, temperature 69°; Wentworth, N.N.W., 14, fine, temperature 68°; Deniliquin, calm, fine, temperature 72°; Eden, N. E., 14, fine, smooth, temperature 60°; Moruya, N.E., 28, fine, smooth, temperature, 64°; Cape St. George, N.E., 28, fine, smooth, temperature 62°; Sydney, E.N.E., 16, fine, smooth; Newcastle, N.E., 14, fine, smooth, temperature 67°; Port Macquarie, N.E., 28, fine, smooth, temperature 73°; Dubbo, calm, fine, temperature 61°; Goulburn, calm, fine, temperature, 59°.

STATE OF RIVERS.

Barwon, 35 feet 4 inches above summer level; Brewarrina, 29 feet 8 inches above summer level; Godooga, 6 feet 10 inches above summer level; Gundagai, 6 feet 9 inches above summer level; Louth, 35 feet 9 inches above summer level; Mogil Mogil, banker; Mungindi, 24 feet above summer level; Namoi, 23 feet above summer level; Tilpa, 38 feet 2 inches above summer level. Murrumbidgee: At Wagga, 8 feet 3 inches above summer level; at Hay, 11 feet 2 inches above summer level; at Balranald, 11 feet 6 inches above summer level. Murray: At Albury, 7 feet above summer level; at Euston, 11 feet 3 inches above summer level. Darling: At Wentworth, 13 feet 8 inches above summer level; at Pooncarie, 21 feet 10 inches above summer level; at Menindie, 25 feet above summer level; at Wilcannia, 33 feet 11 inches above summer level; at Bourke, 37 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 20.

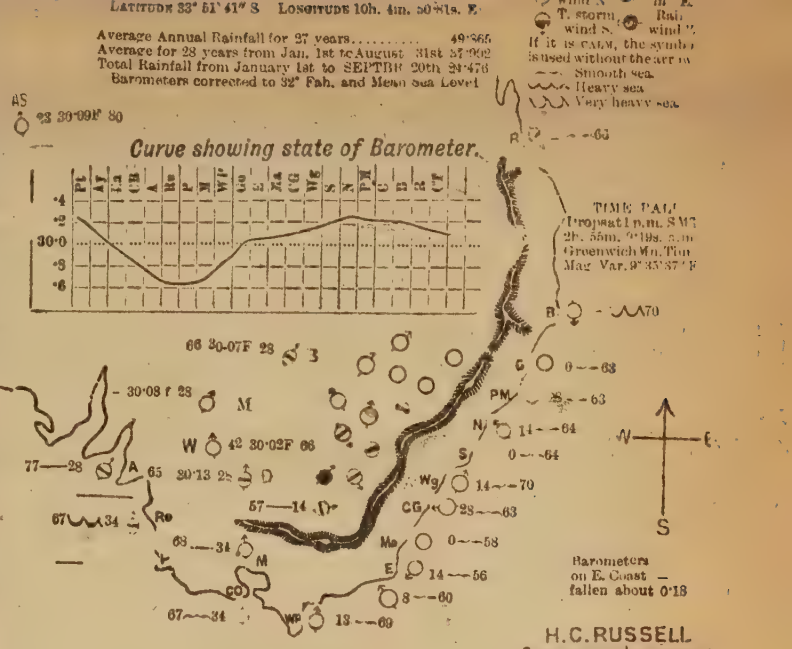
Sun rises at 5.54, sets at 5.54; Moon, ——, 9.50 a.m.; Mercury, 5.47 a.m., 5.21 p.m.; Venus, 5.10 a.m., 4.23 p.m.; Mars, 8.18 a.m., 10.3 p.m.; Jupiter, 6.41 a.m., 7.6 p.m.; Saturn, 2.32 a.m., 12.32 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 20: —— a.m., 12.14 p.m.

Armidale	b	31 40	0
Bairnaldi	b	33 40	0
Bathurst	b	70 38	0
Bend'm'r	b	69 40	0
Bodalla ..	b	79 54	0
Bourke ..	c	84 56	0
Br'w'rrina	b	81 44	0
Bundarra	b	75 50	0
C'md'n H	b	71 53	0
C.St.Geo	b	70 64	0
Carcoar ..	g	60 51	0
Casino ..	b	74 45	0
Cassilis ..	b	65 47	0
Clarence	b	74 57	0
C'nd'b'lin	b	75 35	0
Cooma ..	c	77 37	0
Coonab'n	b	78 42	0
Cowra ..	g	79 45	0
Deniliq'n	g	85 50	0
Dubbo ..	b	73 43	0
Eden	b	61 47	0
Euston ..	b	89 56	0
Forbes ..	b	—34	0·04
Gl'n Inn's	b	71 51	0
Goulburn	b	71 36	0
Grafton ..	b	82 51	0
Gulgong	b	73 44	0
Gunned'h	b	73 48	0
Hay	c	81 45	0
Inverell ..	b	70 43	0·16
Kiandra	c	65 22	0
Lismore	—	—	—
Maitland	b	70 46	0
Marsdens	c	76 50	0
Menindie	b	73 60	0
Molong ..	b	60 41	0
M'r'ng'r'll	c	77 48	0
Moree ..	b	82 49	0
Moruya ..	b	68 47	0
Moss Vale	—	—	—
Mt. Hope	b	75 59	0
M.Vict'ria	b	65 42	0
Mudgee	c	82 37	0
M'rr'm'bh	c	77 47	0
M'rr'r'ndi	b	66 44	0·10
Mus'lbr'k	b	82 40	0
Narrabri	b	76 44	0
Newcastle	b	76 53	0
Orange ..	b	68 40	0·04
Picton ..	b	72 46	0
P. M'q'rie	b	71 49	0
P. St'ph'n	b	74 46	0
Q'nbeyan	u	66 42	0
Quirindi	b	78 46	0
Singleton	b	74 51	0
Sydney ..	h	70 55	0
Tamw'rth	b	76 40	0
Taralga ..	b	79 31	0
Taree	h	78 50	0
Tnt'rfield	b	70 59	0
Wagga ..	r	76 55	0
Walcha ..	n	68 38	0
Walgett ..	b	77 56	0
Warrah ..	b	74 48	0
W'ntw'rth	b	83 55	0
W'll'ng'ng	b	75 56	0
Young ..	g	82 44	0

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years..... 49·365
Average for 28 years from Jan. 1st to August 31st 37·962
Total Rainfall from January 1st to SEPTBR 20th 29·476
Barometers corrected to 32° Fah. and Mean Sea Level



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast-station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ms, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with fresh S. to E. winds in north parts, and W. to N. winds in south; sea moderate. Rainfall: Along the coast from Ashburton to Esperance Bay generally from 14 to 26 points. Extremes of barometers and temperature: Cossack, 29·90 and 70°; Geraldton, 30·28; and Perth, 48°.

South Australia.—Generally warm, dusty, squally, and unpleasant, with scattered clouds, strong N.E. to N. winds, fallen barometers, and moderate to rough sea. Thunderstorm at Queenscliffe and Kangaroo Island. Rainfall: Port Lincoln, 0·07; Streaky Bay, 0·01. Extremes of barometers and temperature on the coast: Eucla, 29·98 and 67°; Robe, 29·61; and Adelaide, 77°.

Victoria.—Generally fine and warm, with fresh northerly winds, fallen barometers, and smooth sea; no rain fallen; squally and sultry along the coast. Extremes of barometers and temperature: Omeo, 30·07 and 57°; Melbourne, 29·70 and 68°.

Tasmania.—Generally fine and sultry, with light northerly winds and calms, fallen barometers, and smooth sea; rough sea off Circular Heads; no rain fallen. Extremes of barometers and temperature: Low Heads, 29·91 and 57°; Southport, 29·72 and 69°.

New Zealand.—Generally fine, with light N.E. to N.W. winds; passing showers at Bluff and on West Coast. Barometers: Russell 30·2, Wellington 30·0, and Bluff 29·9.

New South Wales.—Generally fine and warm, with light variable winds and calms, falling barometers, and smooth sea. Cloudy and threatening in south parts, west of the Range; raining at Wagga Wagga. During the last 48 hours, light rain has fallen at a few stations on and near the Range. Rivers are still falling slowly. Extremes of barometers and temperature at 9 a.m.:—Hay, 30·30; Wentworth, 30·02; Wollongong, 70°; and Kiandra, 46°; reading of standard barometer at Sydney corrected to 32. Fahrenheit and mean sea level at 9 a.m., 30·183. Extra Station:—Lake Cudgellico—maximum, 84°; minimum, 52°; sultry and fine. For further particulars see Map.

Queensland.—Generally fine, with light S. to E. winds, steady barometers, and moderate sea. Rough sea at Cape Moreton. Rainfall:—Townsville, 0·22; Cooktown, 0·11; Rockhampton, 0·02. Extremes of barometers and temperature:—Brisbane, 30·24; Cape Moreton, 65°; Townsville, 29·83; Cooktown, 30·10.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, N., 34, cloudy, sea smooth, temperature 75°; Melbourne, N., 23, strong wind in squalls, temperature 77°; Cape Schanck, N.N.W., 23, fine but cloudy, sea smooth, temperature 66°; Wilson's Promontory, N., 18, fine and squally, sea smooth, temperature 68°; Lake's Entrance, N., 13, fine but sultry, temperature 72°.

New South Wales.—Wentworth, N., 28, fine, temperature 70°; Deniliquin, N., 28, fine, temperature 74°; Eden, N.E., 14, fine, sea smooth, temperature 67°; Moruya, N.E., 28, dull, sea smooth, temperature 64°; Cape St. George, N., 28, like storm, moderate sea, temperature 65°; Sydney, N.E., 16, fine and sultry, sea smooth, temperature 70°; Newcastle, N.E., 14, fine, sea smooth, temperature 69°; Port Macquarie, N.N.E., 42, fine, sea smooth, temperature 73°; Clarence River, N.E., 14, fine, temperature 72°; Balranald, N., 56, fine and dusty; Dubbo, N.E., 28, fine, temperature 67°; Goulburn, N.N.W., fine, temperature 62°.

STATE OF RIVERS.

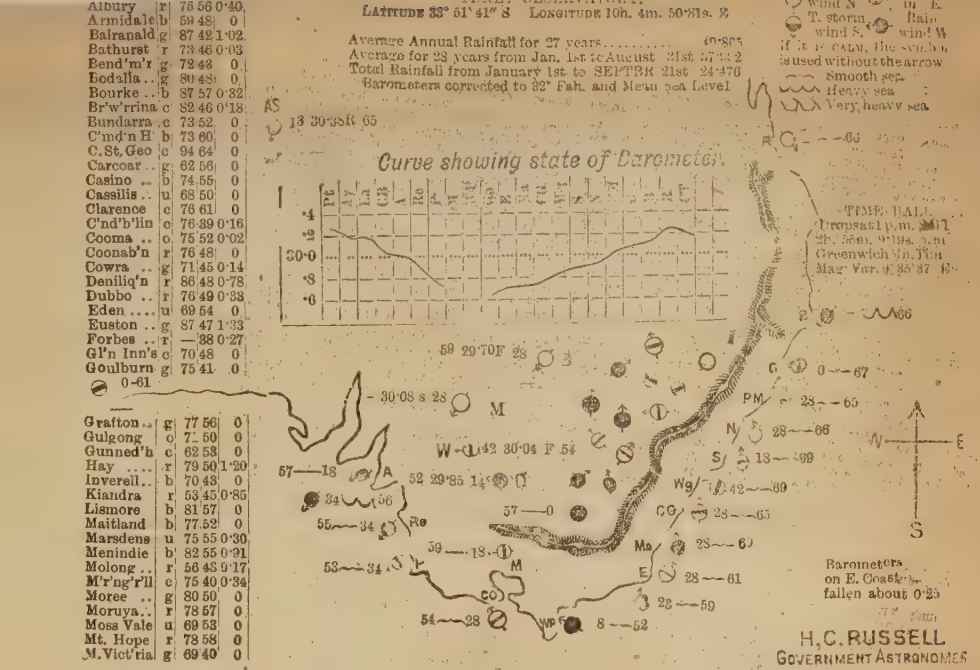
Barwon, 34 feet 2 inches above summer level; Brewarrina, 27 feet 2 inches above summer level; Godooga, 6 feet 2 inches above summer level; Gundagai, 6 feet above summer level; Louth, 35 feet 11 inches above summer level; Mogil Mogil, 26 feet above summer level; Mungindi, 22 feet above summer level; Namoi, 21 feet above summer level; Tilpa, 38 feet 3 inches above summer level Murrumbidgee; At Wagga, 7 feet 3 inches above summer level; at Hay, 11 feet 11 inches above summer level; at Balranald, 11 feet above summer level. Murray: At Albury, 5 feet 10 inches above summer level; at Euston, 11 feet 8 inches above summer level. Darling: At Wentworth, 13 feet 10 inches above summer level; at Pooncarie, 22 feet above summer level; at Menindie, 25 feet above summer level; at Wilcannia, 34 feet above summer level; at Bourke, 37 feet 2 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 21.

Sun rises at 5.53, sets at 5.55; Moon, 12.20 a.m., 10.38 a.m.; Mercury, 5.48 a.m., 5.26 p.m.; Venus, 5.9 a.m., 4.25 p.m.; Mars, 8.17 a.m., 10.3 p.m.; Jupiter, 6.38 a.m., 7.4 p.m.; Saturn, 2.28 a.m., 12.28 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 21: 12.38 a.m., 1.2 p.m.

Albury	r	76	56	0·40
Armidale	b	59	48	0
Balranald	g	87	42	1·02
Bathurst	r	73	46	0·03
Bend'm'r	g	72	43	0
Bodalla	g	80	48	0
Bourke	b	87	57	0·32
Br'w'rrina	c	82	46	0·18
Bundarra	c	73	52	0
C'md'n H	b	73	60	0
C. St. Geo	c	94	64	0
Carcoar	g	62	56	0
Casino	b	74	55	0
Cassilis	u	68	50	0
Clarence	c	76	61	0
C'nd'b'lin	c	76	39	0·16
Cooma	c	75	52	0·02
Coonab'n	r	76	48	0
Cowra	g	71	45	0·14
Deniliq'n	r	86	48	0·78
Dubbo	r	76	49	0·38
Eden	u	69	54	0
Euston	g	87	47	1·33
Forbes	r	—	38	0·27
Gl'n Inn's	c	70	48	0
Goulburn	g	75	41	0
Grafton	g	77	56	0
Gulgong	c	72	50	0
Gunned'h	c	62	53	0
Hay	r	79	50	1·20
Inverell	b	70	43	0
Kiandra	r	53	45	0·85
Lismore	b	81	57	0
Maitland	b	77	52	0
Marsdens	u	75	55	0·30
Menindie	b	82	55	0·91
Molong	r	56	48	0·17
M'r'ng'r'll	c	75	40	0·34
Moree	g	80	50	0
Moruya	r	78	57	0
Moss Vale	u	69	53	0
Mt. Hope	r	78	58	0
M.Vict'ria	g	69	40	0
Mudgee	r	77	42	0
M'rr'mb'h	r	74	55	0·21
M'rr'ndi	c	69	55	0
Mus'br'k	b	80	46	0
Narrabri	o	72	59	0
Newcastle	b	76	58	0
Orange	r	63	44	0·18
Picton	u	76	46	0
P. M'q'rie	c	71	55	0
P. St'ph'n	c	75	53	0
Q'nbeyan	r	67	51	0·13
Quirindi	b	83	41	0
Singleton	b	70	56	0
SYDNEY	c	73	60	0
Tamw'rth	g	75	46	0
Taralga	b	70	35	0
Taree	b	80	52	0
T'nt'rfield	g	75	65	0
Wagga	r	79	56	0·41
Walcha	g	68	20	0
Walgett	r	78	61	0·20
Warrah	c	75	56	0
W'ntw'rth	o	84	49	1·02
W'll'ng'ng	g	75	63	0
Young	c	77	52	0·32



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., *b* standing for blue sky; *c*, detached clouds; *d*, drizzling rain; *f*, fog; *g*, gloomy; *h*, hazy; *m*, misty; *n*, frosty; *o*, overcast; *p*, passing showers; *r*, rain; *s*, snow; *t*, thunder; *u*, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; *rn*, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; A, Albany; Ea, Eucla; CB, Cape Borda; Ad, Adelaide; Ro, Robe; P, Portland; M, Melbourne; W, Wilson's Promontory; Gb, Gabo; E, Eden; Ma, Moruya; C C, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine and clear, with light variable winds and smooth sea; no rain fallen. Extremes of barometers and temperature: Geraldton, 30·25; Cossack, 29·98; Ashburton, 75°: and Esperance Bay, 48°.

South Australia.—Generally overcast, gloomy, and threatening south of Port Augusta, with passing showers in places, fresh W. to S.W. winds, and moderate to rough sea. Rain recorded south of Quorn, generally from 50 to 70 points, but on Mount Lofty ranges over an inch has fallen. Extremes of barometers and temperature: Eucla, 30·24 and 31°; M'Donnell Bay, 29·79 and 54°.

Victoria.—Generally cloudy and threatening rain, with fresh westerly winds, fallen barometers, and smooth sea. Light rain at Hamilton, Echuca, and places on the coast. Rainfall: Portland, 1·19; Echuca, 0·85; Hamilton, 0·75; Ballarat, 0·46; Melbourne, 0·53; and the remainder having less than a quarter of an inch. Extremes of barometers and temperature: Horsham, 29·82; Wilson's Promontory, 30·56; Cape Schanck, 63°; and Hamilton, 49°.

Tasmania.—Generally cloudy and gloomy, with light N.W. to W. winds, fallen barometers, and smooth sea. Showery at Low Heads. Rainfall: Circular Heads, 0·03; and Hobart, 0·01. Extremes of barometers and temperature: On north coast, 29·54 and 55°; along east coast, 29·45 and from 61° to 63°.

New Zealand.—Generally fine, with north-west winds and calm. Barometers: Russell, 30·4; Wellington, 30·2; and Bluff, 30·1.

New South Wales.—Generally overcast, and threatening rain, with fresh northerly winds, falling barometers, and smooth sea. Raining more or less heavily in south and S.W. parts, and on the Castlereagh and Barwon rivers. During the last 24 hours rain has been recorded west of the range, principally in south, and heaviest in the Murray and Lower Darling districts, where six stations report an inch fallen, more or less. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·08; Gabo Island, 29·63; Wollongong, 69°; and Kiandra, 45°. Reading of standard barometer at Sydney corrected to 32. Fahrenheit, and mean sea level at 9 a.m., 29·860. Extra Stations: Lake Cudgellico, maximum 73°, minimum 50°, rainfall 0·32, and still threatening; Temora, rainfall 0·55, and raining lightly; Coonamble, raining steadily; Hill End, raining heavily, 0·08 inch already fallen. For further particulars see map.

Queensland.—In north parts fine, with S.E. wind and moderate sea; in south, light rain, with S.E. to S.W. winds and rough sea. Rainfall: Brisbane, 0·12; and Cape Moreton, 0·10. Extremes of barometers and temperature: Rockhampton, 30·31 and 66°; Townsville, 29·83; and Cooktown, 82°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 34, passing showers, sea smooth temperature 60°; Cape Otway, W.S.W., 40, showery and squally, sea moderate, temperature 54°; Melbourne, W., 18, showery and squally, temperature 54°; Cape Schanck, S.S.W., 34, showery and squally, sea rough, temperature 59°; Wilson's Promontory, W.N.W., 33, squally, sea moderate, temperature 56°.

New South Wales.—Menindie, S.S.W., 28, fine, temperature 66°; Wentworth, W., 14, fine, temperature 61°; Deniliquin, W., 28, overcast and dull, temperature 65°; Eden, N.E., 14, showery, sea moderate, temperature 62°; Moruya, N., 28, cloudy, sea moderate, temperature 66°; Cape St. George, N., 42, cloudy, sea smooth, temperature 62°; Sydney, W., 18, fine but cloudy, sea moderate, temperature 67°; Newcastle, N.W., 14, dull, sea smooth, temperature 65°; Port Macquarie, N.N.E., 42, cloudy, sea moderate, temperature 73°; Clarence River, N.E., 28, dull, sea smooth, temperature 75°; Dubbo, W., 28, fine, temperature 65°; Goulburn, N.W., 23, dull, temperature 60°.

STATE OF RIVERS.

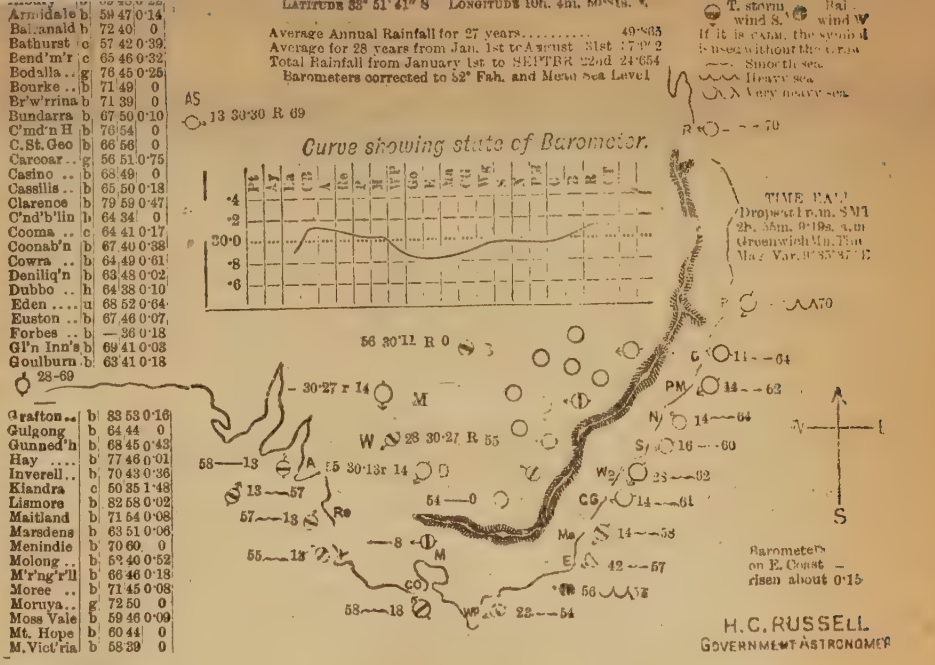
Barwon, 33 feet 10 inches above summer level; Brewarrina, 26 feet above summer level; Goodooga, 5 feet 10 inches above summer level; Gundagai, 6 feet above summer level; Louth, 36 feet above summer level; Mogil Mogil, 25 feet above summer level; Mungindi, 21 feet above summer level; Namoi, 21 feet above summer level. Murrumbidgee: At Wagga, 6 feet 9 inches above summer level; at Hay, 12 feet 6 inches above summer level; at Balranald, 10 feet 10 inches above summer level. Murray: At Albury, 5 feet above summer level; at Euston, 11 feet 10 inches above summer level. Darling: At Wentworth, 14 feet 1 inch above summer level; at Pooncarie, 22 feet above summer level; at Menindie, 25 feet 2 inches above summer level; at Wilcannia, 34 feet 2 inches above summer level; at Bourke, 37 feet above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 22.

Sun rises at 5.51, sets at 5.55; Moon, 1.17 a.m., 11.31 a.m.; Mercury, 5.49 a.m., 5.30 p.m.; Venus, 5.9 a.m., 4.27 p.m.; Mars, 8.15 a.m., 10.3 p.m.; Jupiter, 6.35 a.m., 7.1 p.m.; Saturn, 2.24 a.m., 12.24 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 22: 1.33 a.m., 2.4 p.m.

Armidale	b	59	47	0·14
Balranald	b	72	40	0
Bathurst	c	57	42	0·39
Bend'm'r	c	65	46	0·32
Bodalla	g	76	45	0·25
Bourke	b	71	49	0
Br'w'rrina	b	71	39	0
Bundarra	b	67	50	0·10
C'md'n H	b	76	54	0
C.St. Geo	b	66	56	0
Carcoar	g	56	51	0·75
Casino	b	68	49	0
Cassilis	b	65	50	0·18
Clarence	b	79	59	0·47
C'nd'b'lin	b	64	34	0
Cooma	c	64	41	0·17
Coonab'n	b	67	40	0·38
Cowra	b	64	49	0·61
Deniliq'n	b	63	48	0·02
Dubbo	h	64	38	0·10
Eden	u	68	52	0·64
Euston	b	67	46	0·07
Forbes	b	—	36	0·18
Gl'n Inn's	b	69	41	0·03
Goulburn	b	63	41	0·18
Grafton	b	83	53	0·16
Gulgong	b	64	44	0
Gunned'h	b	68	45	0·43
Hay	b	77	46	0·01
Inverell	b	70	43	0·36
Kiandra	c	50	35	1·48
Lismore	b	82	58	0·02
Maitland	b	71	54	0·08
Marsdens	b	63	51	0·06
Menindie	b	70	60	0
Molong	b	52	40	0·52
M'r'ng'r'll	b	66	46	0·18
Moree	b	71	45	0·08
Moruya	g	72	50	0
Moss Vale	b	59	46	0·09
Mt. Hope	b	60	44	0
M.Vict'ria	b	58	39	0
Mudgee	c	77	40	0·39
M'rr'm'bh	b	59	47	0·43
M'rr'r'ndi	b	65	52	0·25
Mus'lbr'k	h	77	46	0·38
Narrabri	b	70	39	0·40
Newcastle	b	73	53	0
Orange	b	56	40	0·75
Picton	b	66	51	0·07
P. M'q'rie	b	73	47	0
P. St'ph'n	b	75	51	0·09
Q'nbeyan	a	59	46	0
Quirindi	b	73	45	0·21
Singleton	h	71	58	0·20
SYDNEY	b	70	53	0·18
Tamw'rth	—	—	—	—
Taralga	b	70	44	0·25
Taree	b	73	51	0·20
T'nt'rfield	b	70	59	0
Wagga	p	62	46	1·30
Walcha	b	59	40	0·14
Walgett	b	69	48	0·07
Warrah	b	76	55	0
W'ntw'rth	c	66	51	0·01
W'll'ng'ng	b	73	66	0
Young	b	62	43	0·26



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky: c, detached clouds; d, drizzling rain; f, fog; g, gloomy: h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; T M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along westwards; northerly winds preceding them, and southerly following.

Western Australia.—In north, fine, with S.E. winds and smooth sea; in south, parts cloudy and threatening, with S. to S.W. winds and rough sea; showery and squally at Albany. Extremes of barometers and temperature: Geraldton, 30·26; Esperance Bay, 29·94 and 54°; Carnarvon, 74°.

South Australia.—Generally cloudy and gloomy south of Burra, but fine west of Spencer's Gulf, with light northerly winds, risen barometers, and moderate sea; misty and warm along the coast. Rainfall: Cape Borda 0·10, and Robe 0·01. Extremes of barometers and temperature: On coast—Port Augusta, 30·17; Eucla, 29·89 and 69°; Cape Borda, 54°. In Northern Territory—Daly Waters, 30·07 and 83°; Port Darwin, 29·93 and 86°.

Victoria.—Generally fine but cloudy, with light westerly winds, risen barometers, and smooth sea. Misty on the coast. Rainfall: General, but light, 0·25 inch at Omeo being the highest recorded. Extremes of barometers and temperature: Lake's Entrance, 30·11; Wilson's Promontory, 29·96; Hamilton, 49°; and Echuca, 60°.

Tasmania.—Generally fine, with light, variable winds, risen barometers, and dead calm sea. Light rain at Falmouth; 0·02 inch fallen at Southport. Extremes of barometers and temperature: Circular Heads, 29·96; Southport, 29·92 and 56°; Low Heads, 51°.

New Zealand.—Generally fine, with light N.W. wind and calm. Barometers: Russell, 30·3; Wellington, 30·2; and Bluff, 30·0.

New South Wales.—Generally fine and clear, with light N.W. to S.W. winds, rising barometers, and smooth sea. Cloudy in south coast districts and in places along the range. Gabo Island reports: Strong wind in squalls from W., heavy showers (0·83 inch already fallen), and high sea. Thunderstorms during the night reported from Clarence, Grafton, and Bega. Light rain has fallen generally, except in extreme west parts; heaviest in south, and in the districts around Orange, where 10 stations report from ¼ to 1¼ inch fallen. Extremes of barometers and temperature at 9 a.m.: Wentworth and Menindie, 30·27; Gabo Island, 29·85; Clarence 64°; and Cooma, 44°. Reading of standard barometer at Sydney corrected to 32. Fahrenheit, and mean sea level at 9 a.m., 29·993. Extra Stations: Hill End, rainfall 0·75 inch; Bega, 0·69, inch; Lake Cudgellico, maximum 70°, minimum 45°, and cloudy. For further particulars see map.

Queensland.—Generally fine, with light S.E. to S.W. winds, fallen barometers, and smooth sea, but rough off Cape Moreton. Rainfall: Brisbane, 0·05; and Cape Moreton, 0·30. Extremes of barometers and temperature: Rockhampton, 30·14; Townsville, 29·91; Cooktown, 84°, and Cape Moreton, 65°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 18, fine but cloudy, sea smooth, temperature 60°; Cape Otway, W.N.W., 23, cloudy and hazy, sea smooth, temperature 59°; Melbourne, S.S.W., 8, fine, temperature 59°; Cape Schanck, calm, cloudy, sea smooth, temperature 60°; Wilson's Promontory, W., 18, cloudy, sea smooth, temperature 59.; Lake's Entrance, W.S.W., 23, fine, temperature 62°.

New South Wales.—Menindie, calm, fine, temperature 66°; Wentworth, N.N.W., cloudy, temperature 58°; Deniliquin, W., fine, temperature 69°; Eden, S.W., 28, fine, sea smooth, temperature 62°; Moruya, S.E., 28, fine, sea smooth, temperature 62°; Cape St. George, S., 14, cloudy, sea smooth, temperature 63°; Sydney, S.E., 10, fine, sea smooth, temperature 67°; Newcastle, S.E., 14, fine, sea smooth, temperature 65°; Port Macquarie, E., 14, fine, sea smooth, temperature 73°; Clarence River, E.N.E., fine, sea smooth, temperature 72°; Dubbo, calm, fine, temperature 63°; Goulburn, N.W., 14, fine, temperature 58°.

STATE OF RIVERS.

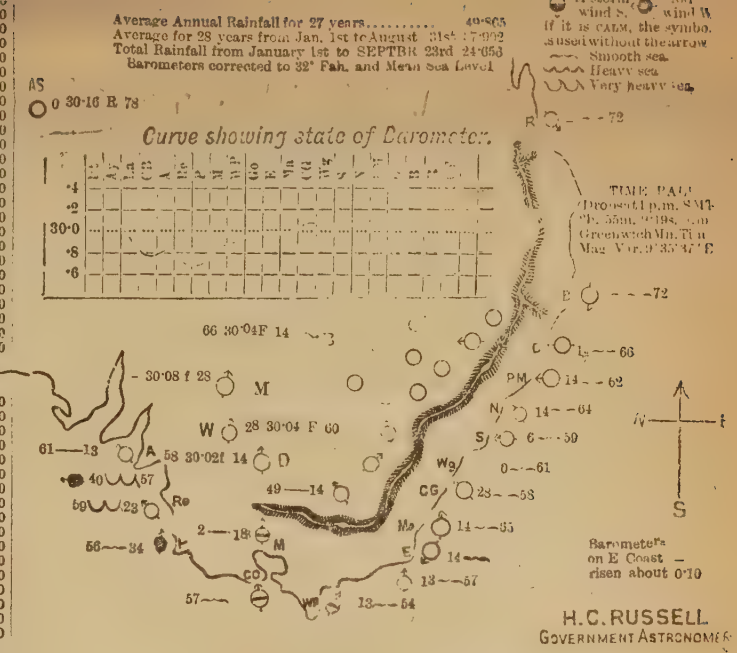
Barwon, 33 feet 4 inches above summer level; Brewarrina, 24 feet 8 inches above summer level; Goodooga, 5 feet 7 inches above summer level; Gundagai, 6 feet above summer level; Louth, 36 feet above summer level; Mogil Mogil, 23 feet above summer level; Mungindi, 19 feet 6 inches above summer level; Namoi, 20 feet 6 inches above summer level; Tilpa, 38 feet 4 inches above summer level. Murrumbidgee: At Wagga, 6 feet 9 inches above summer level; at Hay, 13 feet above summer level; at Balranald, 11 feet above summer level. Murray: At Albury, 5 feet 10 inches above summer level; at Euston, 12 feet above summer level. Darling: At Wentworth, 15 feet 4 inches above summer level; at Pooncarie, 22 feet above summer level; at Menindie, 25 feet 3 inches above summer level; at Wilcannia, 34 feet 3 inches above summer level; at Bourke, 36 feet 10 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 23.

Sun rises at 5.50, sets at 5.56; Moon, 2.12 a.m., 12.30 p.m.; Mercury, 5.50 a.m., 5.34 p.m.; Venus, 5.8 a.m., 4.29 p.m.; Mars, 8.13 a.m., 10.2 p.m.; Jupiter, 6.32 a.m., 6.58 p.m.; Saturn, 2.20 a.m., 12.20 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 23: 2.45 a.m., 3.25 p.m.

Balranald	b	81 39	0
Bathurst	b	62 35	0
Bend'm'r	n	67 38	0
Bodalla ..	g	74 51	0
Bourke ..	b	75 49	0
Br'w rrina	b	81 37	0
Bundarra	b	72 47	0
C'md'n H	b	71 51	0
C.St. Geo	b	68 53	0
Carcoar ..	b	58 48	0
Casino ..	b	87 48	0
Cassilis ..	b	65 44	0
Clarence	b	79 59	0
C'nd'b'lin	b	67 34	0
Cooma ..	n	65 31	0
Coonab'n	b	72 36	0
Cowra ..	b	69 46	0
Deniliq'n	b	73 45	0
Dubbo ..	b	69 37	0
Eden	b	63 48	0
Euston ..	b	73 45	0
Forbes ..	b	— 38	0
Gl'n Inn's	b	67 42	0
Goulburn	b	65 35	0
Grafton ..	b	82 60	0
Gulgong	b	66 40	0
Gunned'h	b	71 44	0
Hay	b	77 45	0
Inverell ..	b	66 39	0
Kiandra	n	55 25	0
Lismore	b	86 52	0
Maitland	b	73 45	0
Marsdens	b	68 48	0
Menindie	b	68 55	0
Molong ..	b	61 38	0
M'r'ng'r'll	b	71 42	0
Moree ..	b	70 59	0
Moruya ..	h	70 54	0
Moss Vale	b	62 40	0
Mt. Hope	b	67 51	0
M.Vict'ria	b	61 33	0
Mudgee	b	70 33	0
M'rr'm'bh	b	68 42	0
M'rr'r'ndi	h	64 45	0
Mus'br'k	b	76 47	0
Narrabri	b	71 50	0
Newcastle	b	72 50	0
Orange ..	b	58 35	0
Picton ..	b	70 38	0
P. M'q'rie	b	71 47	0
P. St'ph'n	b	69 43	0
Q'nbeyan	h	61 41	0
Quirindi	b	75 44	0
Singleton	b	71 52	0
Sydney ..	h	70 50	0
Tamw'rth	b	69 39	0
Taralga ..	b	69 36	0
Taree	n	72 49	0
T'nt'rfield	b	68 60	0
Wagga ..	b	64 41	0
Walcha ..	b	60 31	0
Walgett ..	b	62 49	0
Warrah ..	b	68 53	0
W'ntw'rth	b	69 51	0
W'll'ng'ng	b	74 46	0
Young ..	b	78 38	0



NOTES EXPLANATORY OF MAP.

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Western Australia.—Generally fine, with light variable winds and smooth sea; strong, squally, S.E. wind and rough sea at Carnarvon; 0.03 inch rain fallen at Albany. Extremes of barometers and temperature: Geraldton, 30·22; Cossack, 29·89; Carnarvon, 72°; and Perth, 54°.

South Australia.—Generally fine and warm inland, scattered clouds on and near the coast, with fresh, squally W. to N. winds, fallen barometers, and rough sea; passing showers in places on the coast. Rainfall: M'Donnell Bay, 0·13; Robe, 0·6; and Cape Borda 0·01. Extremes of barometers and temperature: On coast—Eucla, 30·07, Robe 29·73, Adelaide 61°, and M'Donnell Bay 56°. In Northern Territory—Daly Waters, 30·01 and 85°; Port Darwin 29·91 and 86°.

Victoria.—Generally cloudy and unsettled, with light N.E. to N.W. winds, fallen barometers and smooth sea. Misty and squally on the coast. Rainfall: Portland, 0.05, and still showery. Extremes of barometers and temperature: Lake Entrance, 30·00 and 52°; Portland, 29·70; and Horsham, 60°.

Tasmania.—Generally fine and clear, with light northerly winds, fallen barometers, and moderate sea. No rain fallen. Extremes of barometers and temperature: Low Heads, 29·93; Southport, 29·87 and 56°; Falmouth, 52°.

New Zealand.—Generally cloudy and unsettled, with strong north-west wind. Showery and calm at Russell. Barometers: In extreme north, 30·2; Wellington, 30·0.; and Bluff, 29·8.

New South Wales.—Generally fine, clear, and warm, with light variable winds and calms, rising barometers, and smooth sea. Cloudy and frosty at a few places on the range in south. Rivers falling slowly. Extremes of barometers and temperature at 9 a.m.: Newcastle and Port Macquarie, 30·08; Gabo Island, 29·94; Bourke 66°; and Cooma, 47°. Reading of standard barometer at Sydney corrected to 32. Fahrenheit, and mean sea level at 9 a.m., 30·088. Extra Stations: Lake Cudgellico, maximum 65°, minimum 45°, and fine; Gabo Island, 0·03 inch rain fallen. For further particulars see map.

Queensland.—Generally fine, with light S.E. to S. winds and calms, almost steady barometers, and moderate sea. No rain fallen. Extremes of barometers and temperature: Brisbane, 30·11; Townsville, 29·82; Cape Moreton, 66°: and Cooktown, 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 40, squally, showery, sea smooth, temperature 60°; Cape Otway, N.N.W., 40, fine and squally, slight thunderstorm at 1 p.m., sea smooth, temperature 65°; Melbourne, N.E., 18, fine, squally, temperature 66.; Cape Schanck, N., cloudy, sea rather rough, temperature 61°; Wilson's Promontory, N.E., 18, hazy, squally, sea slight, temperature 59; Lakes Entrance, E., 23, fine, cloudy, temperature 65°.

New South Wales.—Menindie, N., 28, fine, clear, temperature 70°; Wentworth, N.W., 14, dull, temperature 66°; Deniliquin, N., 14, cloudy, temperature 64; Eden, N.E., 14, fine, sea light, temperature 60°; Moruya, N.N.E., 28, fine, hazy, sea smooth, temperature 70°; Cape St. George, N.N.E., 14, fine, sea smooth, temperature 64°; Sydney, N.E., strong, fine, clear, sea smooth, temperature 66°; Newcastle, E., light, fine, no sea, temperature 67°; Port Macquarie, E.N.E., 28, fine, sea smooth, temperature 74°; Clarence River, N.E., fresh, fine, sea smooth, temperature 72°; Dubbo, calm, fine, temperature 65°; Goulburn, calm, fine, temperature 61°.

STATE OF RIVERS.

Barwon, 32 feet 10 inches above summer level; Brewarrina, 23 feet above summer level; Godooga, 5 feet 3 inches above summer level; Gundagai, 7 feet above summer level; Louth, 36 feet above summer level; Mogil Mogil, 21 feet above summer level; Mungindi, 18 feet above summer level; Namoi, 20 feet above summer level; Tilpa, 38 feet 5 inches. Murrumbidgee: At Wagga, 6 feet 9 inches above summer level; at Hay, 13 feet 6 inches above summer level; at Balranald, 11 feet 3 inches above summer level. Murray: At Albury, 5 feet 6 inches above summer level; at Euston, 12 feet 4 inches above summer level. Darling: At Wentworth, 14 feet 4 inches above summer level; at Pooncarie, 22 feet above summer level; at Menindie, 25 feet 4 inches above summer level; at Wilcannia, 34 feet 4 inches above summer level; at Bourke, 36 feet 8 inches above summer level.

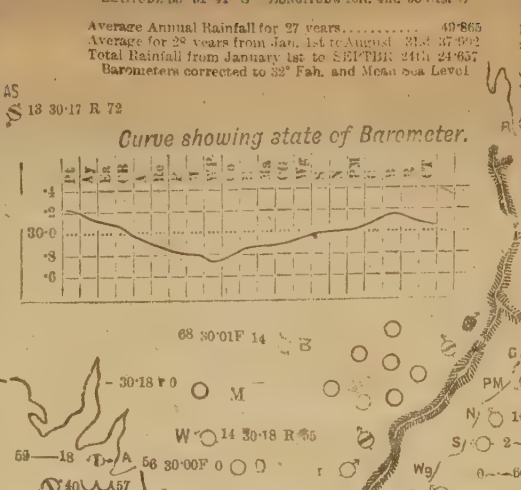
ASTRONOMICAL MEMORANDA FOR SEPTEMBER 24.

Sun rises at 5.49, sets at 5.57; Moon, 3.5 a.m., 1.33 p.m.; Mercury, 5.51 a.m., 5.38 p.m.; Venus, 5.8 a.m., 4.31 p.m.; Mars, 8.11 a.m., 10.2 p.m.; Jupiter, 6.29 a.m., 6.55 p.m.; Saturn, 2.16 a.m., 12.16 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 24: 2.45 a.m., 3.25 p.m.

Armidale	b	59 45	0
Balranald	b	83 44	0·27
Bathurst	b	73 40	0
Bend'm'r	b	72 45	0
Bodalla ..	b	70 44	0
Bourke ..	b	88 54	0
Br'w rrina	b	87 39	0
Bundarra	c	75 47	0
C'md'n H	b	74 59	0
C.St.Geo	b	67 55	0
Carcoar ..	b	61 47	0
Casino ..	u	85 52	0
Cassilis ..	h	69 48	0
Clarence ..	o	79 53	0
C'nd'b'lin	b	74 41	0
Cooma ..	b	67 41	0·02
Coonab'n	b	77 40	0
Cowra ..	b	71 48	0
Deniliq'n	b	75 45	0·40
Dubbo ..	b	75 39	0
Eden	b	63 59	0
Euston ..	b	81 39	0
Forbes ..	b	— 39	0
Gl'n Inn's	c	73 45	0
Goulburn	b	74 45	0
Grafton ..	b	83 58	0
Gulgong	b	70 41	0
Gunned'h	b	71 49	0
Hay	b	77 45	0·03
Inverell ..	c	71 43	0·24
Kiandra	c	64 41	0·21
Lismore	c	86 59	0
Maitland	b	73 48	0
Marsdens	b	75 51	0
Menindie	b	72 54	0
Molong ..	b	59 39	0
M'r'ng'r'll	b	73 54	0
Moree ..	b	80 56	0·13
Moruya ..	b	68 49	0
Moss Vale	b	68 48	0
Mt. Hope	b	74 55	0
M. Vict'ria	b	69 47	0
Mudgee	b	78 36	0
M'rr'm'bh	b	74 49	0
M'rr'r'ndi	b	68 54	0
Mus'b'r'k	b	77 46	0
Narrabri	b	76 50	0
Newcastle	b	74 54	0
Orange ..	b	61 39	0
Picton ..	b	72 41	0
P. M'q'rie	c	78 53	0
P. St'ph'n	b	62 47	0
Q'nbeyan	b	64 48	0
Quirindi	b	83 48	0
Singleton	b	70 52	0
Sydney ..	h	67 53	0
Tamw'rth	b	74 45	0
Taralga ..	b	71 47	0
Taree	b	77 54	0
T'nt'rfield	r	78 63	0
Wagga ..	b	74 53	0·02
Walcha ..	b	71 38	0
Walgett ..	b	76 52	0
Warrah ..	b	73 45	0
W'ntw'rth	b	79 47	0
W'll'ng'ng	b	73 52	0
Young ..	b	76 44	0

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to August 31st 37·502
Total Rainfall from January 1st to SEPTBR 24th 24·657
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In north parts fine, with S.E. to S. winds, and smooth sea: in south showery, with N.W. to W. winds, and moderate sea. Strong wind and squalls and rough sea off Gascoyne River. 0.14 rain fallen at Perth and Albany. Extremes of barometers and temperature: Geraldton, 30·26; Cossack, 29·83; Ashburton, 70°; and Esperance Bay, 50°.

South Australia.—Cloudy and gloomy south of Burra; fine with scattered clouds in Northern Territory. Winds are generally rather strong from N.W. and S.W., barometers have risen, and the sea is rough. Rainfall: M'Donnell Bay, 0·23; Robe, 0·11; Cape Borda and Peake, 0·06; at the last place it was still raining at 9 a.m. Extremes of barometers and temperature: On the coast, Eucla, 30·14 and 61°; M'Donnell Bay, 29·87 and 55°. In Northern Territory: Daly Waters, 30·01 and 84°; Port Darwin, 29·87 and 86°.

Victoria.—Generally overcast and threatening, with passing showers on S.W. coast, strong westerly winds, fallen barometers, and rough sea; squally and misty on the coast. Rainfall: Ballarat, 0·34; Portland, 0·69; Echuca, 0·50; Cape Schanck, 0·37; Wilson's Promontory, 0·30; and over the rest of the colony quantities below ¼ inch. Extremes of barometers and temperature: Horsham, 30·00; Wilson's Promontory, 29·74; Melbourne, 60°; and Echuca, 50°.

Tasmania.—Generally unsettled, with fresh N. to N.W. winds, fallen barometers, and moderate sea; squally and rough sea on north coast; showery at Southport. Rainfall: Low Heads, 0·84; Circular Heads, 0·65; Falmouth, 0·23. Extremes of barometers and temperature: Low Heads, 29·74 and 53°; Hobart, 29·51; and Falmouth, 58°.

New Zealand.—On North Island, passing showers from N.W.; at Bluff, fine, with S.E. wind. Barometers: Russell, 30·0; Wellington, 29·7; and Bluff, 29·9.

New South Wales.—Generally fine, clear, and warm, with light N.W. to S.W. winds and calms, slightly fallen barometers, and smooth to moderate sea. Cloudy on the range in north, and showery at Tenterfield. During the last 24 hours, light rain has fallen along the Murray and Murrumbidgee rivers, and on the range in south. Rivers are falling slowly. Extremes of barometers and temperature at 9 a.m.: Menindie and Wentworth, 30·18; Gabo Island, 29·81; Clarence Heads, 69°; and Goulburn, 40°. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit, and mean sea level at 9 a.m., 30·008. Extra Stations: Lake Cudgellico, maximum 75°, minimum 42°, and fine; Gabo Island, 0·02 inch rain fallen. For further particulars see map.

Queensland.—Generally fine, with light N.E. to S.E. winds, and calms, risen barometers, and moderate sea. No rain fallen. Extremes of barometers and temperature: Brisbane, 30·20; Cape Moreton, 70°; Townsville, 29·79; and Cooktown, 82°.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, calm fine, temperature 68°; Wentworth, W., fine, temperature 64°; Deniliquin, W., fine, temperature 69°; Eden, S.E., 14, fine, sea smooth, temperature 60°; Moruya, S.E., 28, fine, sea smooth, temperature 68°; Cape St. George, N., 28, fine, sea smooth, temperature 66°; Sydney, N.E., 12, fine and clear, sea smooth, temperature 72°; Newcastle, N.E., 14, fine, sea smooth, temperature 77°; Port Macquarie, E.S.E., 14, fine, sea smooth, temperature 75°; Clarence River, N.E., 14, dull, sea smooth, temperature 74°; Walgett, S.E., fine, temperature 77°; Dubbo, S., 28, fine, temperature 70°; Goulburn, W., fine, temperature 64°.

STATE OF RIVERS.

Barwon, 32 feet 6 inches above summer level; Brewarrina, 22 feet above summer level; Goodooga, 4 feet 10 inches above summer level; Gundagai, 8 feet above summer level; Louth, 36 feet above summer level; Mogil Mogil, 19 feet above summer level; Mungindi, 17 feet above summer level; Namoi, 18 feet 8 inches above summer level; Tilpa, 38 feet 5 inches above summer level. Murrumbidgee: At Wagga, 9 feet 8 inches above summer level; at Hay, 14 feet above summer level; at Balranald, 11 feet above summer level. Murray: At Albury, 7 feet 10 inches above summer level; at Euston, 12 feet 4 inches above summer level. Darling: At Wentworth, 14 feet 4 inches above summer level; at Pooncarie, 22 feet 1 inch above summer level; at Menindie, 25 feet 4 inches above summer level; at Wilcannia, 34 feet above summer level; at Bourke, 36 feet 4 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 25.

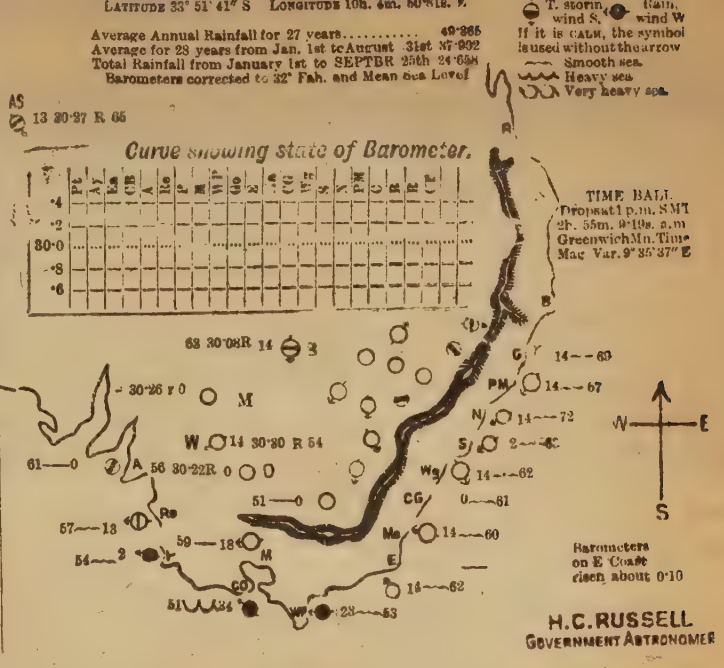
Sun rises at 5.17, sets at 5.58; Moon, 3.53 a.m., 2.39 p.m.; Mercury, 5.52 a.m., 5.42 p.m.; Venus, 5.7 a.m., 4.33 p.m.; Mars, 8.9 a.m., 10.1 p.m.; Jupiter, 6.25 a.m., 6.52 p.m.; Saturn, 2.13 a.m., 12.13 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 25: 5.30 a.m., 6.7 p.m.

Albury	b	67	35	0
Armidale	b	69	47	0
Balranald	b	83	35	0
Bathurst	b	73	37	0
Bend'm'r	t	75	42	0
Bodalla ..	b	85	40	0
Bourke ..	c	87	54	0
Br'w rrina	c	92	43	0
Bundarra	b	76	47	0
C'md'n H	b	78	56	0
C. St. Geo	b	75	61	0
Carcoar ..	b	65	46	0
Casino ..	b	87	59	1·66
Cassilis ..	c	72	50	0
Clarence	b	76	64	0
C'nd'b'lin	b	75	35	0
Cooma ..	b	74	33	.0
Coonab'n	h	82	43	0
Cowra ..	b	78	52	0
Deniliq'n	b	70	43	.0
Dubbo ..	b	79	38	0
Eden		—	—	—
Euston ..	b	79	37	0
Forbes ..	b	—	38	0
Gl'n Inn's	b	63	52	0·30
Goulburn	b	74	35	0
Grafton ..	b	86	57	0·01
Gulgong ..	b	75	45	0
Gunned'h	b	64	48	0
Hay	b	76	42	0
Inverell ..	c	75	55	0
Kiar'ina	c	59	36	0
....	r	76	63	1·01
....land	b	79	53	0
Marsdens	b	74	50	0
Menindie	b	67	53	0
Molong ..	b	58	40	0
M'r'ng'r'll	b	78	45	0
Moree ..	b	88	53	0
Moruya ..	h	76	47	0
Moss Vale	b	70	46	0
Mt. Hope	b	71	51	0
M. Vict'ria	b	69	43	0
Mudgee	b	81	38	0
M'rr'm'bh	b	78	45	0
M'rr'r'ndi	b	79	54	0
Mus'lbr'k	b	81	44	0
Narrabri	b	71	43	0
Newcastle	b	80	61	0
Orange ..	b	60	36	0
Picton ..	b	79	44	0
P. M'q'rie	b	75	51	0
P. St'ph'n	b	79	51	0
Q'nbeyan	b	69	42	0
Quirindi	b	88	52	0
Singleton	b	78	56	0
SYDNEY ..	b	71	57	0
Tamw'rth	—	—	—	—
Taralga ..	b	72	37	0
Taree	b	85	58	0
T'nt'rfield	o	76	40	1·45
Wagga ..	b	74	42	0
Walcha ..	b	72	35	0
Walgett ..	b	79	54	0
Warrah ..	b	77	54	0
W'ntw'rth	b	72	47	0
Will'ng'ng	b	80	51	0
Young ..	b	84	38	0

Latitude 33° 51′ 41″ S Longitude 10h. 4m. 50·818s. E.

Average Annual Rainfall for 27 years..... 49·365
Average for 28 years from Jan. 1st to August 31st 37·902
Total Rainfall from January 1st to SEPTBR 25th 24·638
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Eu, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Mo, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In south parts cloudy and gloomy, with light N.E. to N.W. winds risen barometers and smooth sea. One point rain fallen at Esperance Bay. Extremes of barometers and temperature: Albany, 30·22; Perth, 55°; Esperance Bay, 30·27 and 49.

South Australia.—South of Burra, fine, with scattered clouds; fine and clear inland to Hawkes; gloomy and threatening in Northern Territory. Winds, light and variable with calms in places; barometers risen slightly, sea moderating, showery at M'Donnell Bay. Rainfall: from 1 to 10 points on the coast; Alice Springs, 0.15 and Tennant's Creek, 0·26. Extremes of barometers and temperature: On the coast, Eucla, 30·22 and 63°; M'Donnell Bay, 30·07 and 53°. In Northern Territory: Daly Waters, 30·01 and 84°; Port Darwin, 29·89 and 84°.

Victoria.—Generally unsettled, with fresh westerly winds and risen barometers. Squally and showery, with rough sea on the coast. Rainfall: Cape Otway, 0·23; Wilson's Promontory, 0·12; Portland, 0·18; and Ballarat, 0·04. Extremes of barometers and temperature: Ballarat, 30·12; Wilson's Promontory, 29·95; Melbourne, 59°; Hamilton, 50°.

Tasmania.—Generally fine, with fresh westerly winds, risen barometers, and moderate to rough sea. Rainfall: Circular Heads, 0·25; Low Heads, 0·12; and Hobart, 0·02. Extremes of barometers and temperature: Low Heads, 29·92 and 52°; Falmouth, 29·83 and 57°.

‡New Zealand.—On North Island, passing showers, in South fine. Winds variable. Barometers: Russell, 30·2; Wellington and Bluff, 30·0.

New South Wales.—Generally fine and clear, with light S.E. to S.W. winds, risen barometers, and smooth sea. Cloudy in north on and near the range, dense fog at Bendemeer, heavy thunderstorm and rain at Lismore. During the last 24 hours, moderately heavy rain has fallen on the Clarence and Richmond rivers. Three stations report from 1 to 1¼ inch. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·30; Forbes, 29·99; Newcastle, 72°; and Kiandra, 48°. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit, and mean sea level at 9 a.m., 30·117. Extra Stations: Lake Cudgellico, maximum 69°, minimum 44°, and fine. For further particulars see map.

Queensland.—Brisbane: Gloomy weather, with light N.W. wind; barometer 32·22, temperature 67°, and 1·48 inch of rain fallen.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, 8., 14, fine, temperature 67°; Wentworth, N.W., fine, temperature 64°; Deniliquin, N.W., 14, fine, temperature 69°; Moruya, N.E., fine, temperature 64°; Cape St. George, calm, fine, sea smooth, temperature 66°; Sydney, N.E., 10, fine, sea smooth, temperature 67°; Newcastle, N.E., fine, sea smooth, temperature 68°; Walgett, S.W., fine, temperature 80°; Dubbo, calm, fine, temperature 68°; Goulburn, W., 10, fine, temperature 63°.

STATE OF RIVERS.

Barwon, 31 feet 8 inches above summer level; Brewarrina, 21 feet above summer level; Goodooga, 4 feet 8 inches above summer level; Gundagai, 7 feet 6 inches above summer level; Louth, 35 feet 11 inches above summer level; Mogil Mogil, 17 feet above summer level; Mungindi, 16 feet above summer level; Namoi, 18 feet above summer level; Tilpa, 38 feet 5 inches above summer level. Murrumbidgee: At Wagga, 10 feet 6 inches above summer level; at Hay, 13 feet 6 inches above summer level; at Balranald, 11 feet 9 inches above summer level. Murray: At Albury, 8 feet 5 inches above summer level; at Euston, 12 feet 6 inches above summer level. Darling: At Wentworth, 14 feet 6 inches above summer level; at Pooncarie, 22 feet above summer level; at Menindie, 25 feet 5 inches above summer level; at Wilcannia, 34 feet 5 inches above summer level; at Bourke, 36 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 27.

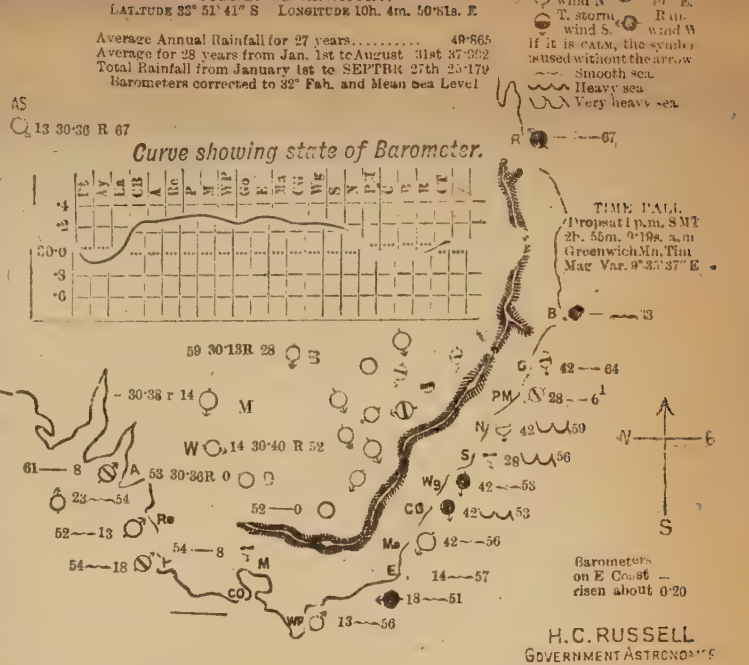
Sun rises at 5.44, sets at 5.59; Moon, 5.23 a.m., 4.57 p.m.; Mercury, 5.54 a.m., 5.50 p.m.; Venus, 5.6 a.m., 4.37 p.m.; Mars, 8.5 a.m., 10 p.m.; Jupiter, 6.19 a.m., 6.46 p.m.; Saturn, 2.5 a.m., 12.5 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 27: 7.23 a.m., 7.56 p.m.

Albury	s	68	44	0
Armidale	u	64	—	0·49
Balranald	b	85	30	0
Bathurst	g	54	40	0
Bend'm'r	g	56	49	0·88
Bodalla ..	b	76	46	0
Bourke ..	b	75	49	0
Br'w rrina	b	76	37	0
Bundarra	c	70	59	0·58
C'md'n H	u	74	59	0·63
C. St. Geo	r	64	50	0
Carcoar ..	b	62	46	0
Casino ..	u	70	58	1·18
Cassilis ..	o	64	47	0
Clarence	u	84	61	0·47
C'nd'b'lin	b	73	35	0
Cooma ..	c	73	36	0·27
Coonab'n	b	64	45	0·05
Cowra ..	b	76	49	0
Deniliq'n	b	72	39	0
Dubbo ..	b	64	36	0
Eden	u	61	48	0·06
Euston ..	b	74	39	0
Forbes ..	b	—	39	0
Gl'n Inn's	b	79	50	0·80
Goulburn	g	72	41	0
Grafton ..	c	87	58	1·59
Gulgong ..	c	73	40	0
Gunned'h	b	81	53	0·17
Hay	b	73	41	0
Inverell ..	c	62	55	0·78
Kiandra	c	60	27	0·05
Lismore	r	69	62	0·73
Maitland	u	78	57	0·03
Marsdens	b	73	51	0
Menindie	b	65	49	0
Molong ..	b	55	45	0
M'r'ng'r'll	c	72	48	0
Moree ..	b	67	53	0·71
Moruya ..	b	70	49	0·35
Moss Vale	—	—	—	—
Mt. Hope	b	70	49	0
M. Vict'ria	r	69	40	0·51
Mudgee	g	82	39	0
M'rr'm'bh	b	77	40	0
M'rr'r'ndi	o	68	52	0·10
Mus'lbr'k	g	76	49	0·25
Narrabri	g	83	46	0·52
Newcastle	c	68	56	0·52
Orange ..	b	65	39	0
Picton ..	n	74	42	0
P. M'q'rie	c	68	54	2·78
P. St'ph'n	c	75	52	0·31
Q'nbeyan	b	64	42	0
Quirindi	o	75	46	0·16
Singleton	g	75	61	0·05
Sydney ..	n	67	53	0·52
Tamw'rth	g	61	52	0·42
Taralga ..	r	75	38	0
Taree	c	69	58	0·60
T'nt'rfield	u	71	61	1·20
Wagga ..	b	76	41	0
Walcha ..	u	68	36	0·79
Walgett..	b	69	50	0
Warrah ..	c	78	47	0·20
W'ntw'rth	b	70	43	0
W'll'ng'ng	r	73	52	0·04
Young ..	b	85	41	0

LATITUDE 32° 51′ 41″ S LONGITUDE 10h. 4m. 50·8s. E

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to August 31st 37·992
Total Rainfall from January 1st to SEPTBR 27th 25·179
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and unsettled, with light N. to W. winds, and moderate sea. Showery at Albany, rough sea off Esperance Bay. Rainfall: Albany, 0·07; Perth, 0·01. Extremes of barometers and temperature: Geraldton, 30·18; Esperance Bay, 29·81; Carnarvon, 75°; and Albany, 60°.

South Australia.—Generally fine, with light north-easterly winds, risen barometers, and smooth sea; light scattered clouds on parts of coast west of Adelaide. Rainfall: Alice Springs, 0·65; Daly Waters, 0·14; Port Darwin, 0·03; Tennant's Creek, 0·06; Peake, 0·48; M'Donnell Bay, 0·03; and Robe, 0·01. Extremes of barometers and temperature: On the coast, M'Donnell Bay, 30·34 and 51°; Eucla, 29·98 and 75° (very sultry). In Northern Territory: Daly Waters, 30·11 and 76°; Port Darwin, 29·90 and 81°.

Victoria.—Generally cloudy and settled, with light N.E. to S.E. winds, risen barometers, and smooth sea. Rainfall: Melbourne, 30·37; Wilson's Promontory, 30·29; Horsham, 57°; and Hamilton, 46°. Rainfall: Omeo, 0·40; Melbourne, 0·50; Portland and Wilson's Promontory, 0·31, and other stations a few points.

Tasmania.—Cloudy on north coast, with variable winds; fine on east coast, with light south wind and calm, sea moderate; 0·04 inch of rain fallen at Hobart. Extremes of barometers and temperature: Low Heads, 30·39; Southport, 30·32; Hobart, 46°; and Circular Heads, 54°.

New Zealand.—Generally gloomy, with rather strong N.W. to S.W. winds, especially in south parts. Barometers: Russell, 30·1; Wellington, 29·7; Bluff, 29·6.

New South Wales.—In west parts fine and clear; on the coast and along the range overcast and threatening, with passing showers of rain in places, principally south of Sydney; winds generally are rather strong from S.E. to S.W.; barometers have risen, and along the coast it is stormy, with rising sea. During the last 48 hours rain has fallen in the Eastern division generally, principally north of Newcastle, and heaviest north of Port Macquarie, where several stations report quantities varying from 1 to nearly 3 inches to have fallen. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·40; Clarence, 29·93 and 64°; Kiandra, 37°. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit, and mean sea level at 9 a.m., 30·201. Extra Stations: Warialda, rainfall 0·87 inch, calm and fine; Lawrence, 0·80, and threatening; Nowra, maximum 72°, minimum 22°, rainfall 0·45, and occasional showers from S.E. For further particulars see map.

Queensland.—Showery, with N.W. to S.W. winds, and moderate sea in south parts; overcast, gloomy, and calm in north rough sea at Cooktown. Rainfall: Brisbane 1·39, Cape Moreton 1·37, Townsville 0·75, Rockhampton 0·35, and Cooktown 0·25. Extremes of barometers and temperature: Cooktown, 30·03 and 89°; Townsville, 29·71; and Brisbane, 64°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.N.E., 8, fine, smooth sea, temperature 58°; Cape Schanck, S., 8, fine and misty, smooth sea, temperature 58°; Melbourne, S.S.W., 13, fine, temperature 57°; Wilson's Promontory, N.E., 18, overcast and squally, sea moderate, temperature 57°; Lakes Entrance, E., 23, fine but cloudy, temperature 63°.

New South Wales.—Menindie, calm, fine, temperature 64°; Wentworth, S.E., fine, temperature 61°; Deniliquin, S., fine, temperature 67°; Eden, S.E., 14, fine, smooth sea, temperature 58°; Moruya, S., 42, fine, moderate sea, temperature 64°; Cape St. George, S.E., 42, showery, moderate sea, temperature 59°; Sydney, S.S.E., 30, overcast and gloomy, rough sea, temperature 61°; Newcastle, S.E., 28, stormy, heavy sea, temperature 57°; Port Macquarie, S., 14, showery, smooth sea, temperature 67°; Clarence River, S., 42, showery, moderate sea, temperature 64°; Walgett, N.E., fine, temperature 70°; Dubbo, E.S.E., 8, fine, temperature 65°; Goulburn, E., dull, temperature 57°.

STATE OF RIVERS.

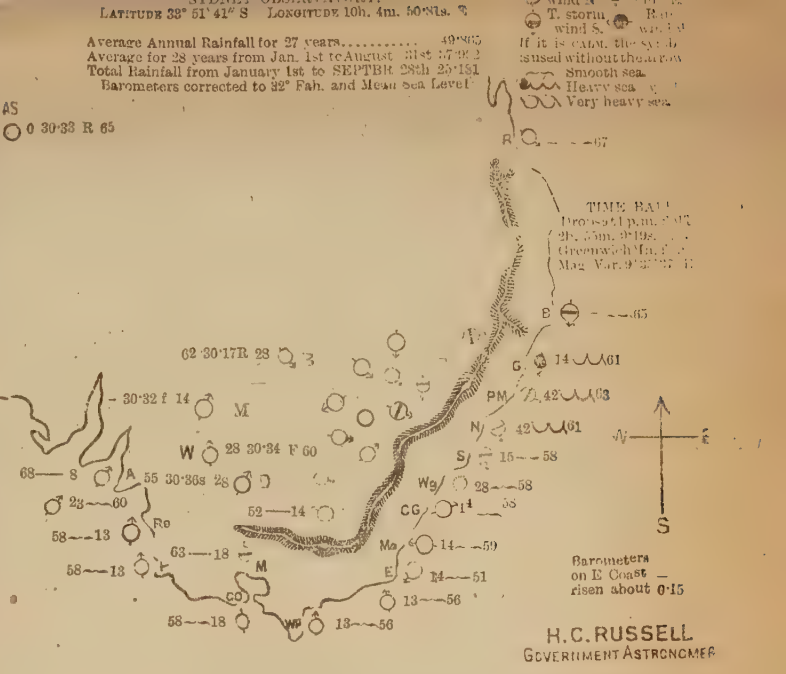
Barwon, 29 feet 4 inches above summer level; Brewarrina, 19 feet above summer level; Goodooga, 4 feet 5 inches above summer level; Gundagai, 7 feet above summer level; Louth, 35 feet 8 inches above summer level; Mogil Mogil, 12 feet 6 inches above summer level; Mungindi, 14 feet above summer level; Namoi, 16 feet above summer level; Tilpa, 38 feet 5 inches above summer level. Murrumbidgee: At Wagga, 9 feet 10 inches above summer level; at Hay, 14 feet 10 inches above summer level; at Balranald, 11 feet 9 inches above summer level. Murray: At Albury, 7 feet 9 inches above summer level; at Euston, 12 feet 8 inches above summer level. Darling: At Wentworth, 14 feet 7 inches above summer level; at Pooncarie, 22 feet 1 inch above summer level; at Menindie, 25 feet 7 inches above summer level; at Wilcannia, 34 feet 4 inches above summer level; at Bourke, 35 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 28.

Sun rises at 5.43, sets at 5.59; Moon, 6.4 a.m., 6.6 p.m.; Mercury, 5.55 a.m., 5.55 p.m.; Venus, 5.6 a.m., 4.38 p.m.; Mars, 8.4 a.m., 10 p.m.; Jupiter, 6.15 a.m., 6.43 p.m.; Saturn, 2.2 a.m., 12.2 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 28: 8.20 a.m., 8.42 p.m.

Albury	b	72 44	0
Armidale	u	58 47	0·06
Balranald	b	84 39	0
Bathurst	b	59 39	0
Bend'm'r	g	60 49	0·22
Bodalla ..	g	68 45	0
Bourke ..	b	77 51	0
Br'w rrina	b	74 38	0
Bundarra	c	68 58	0·06
C'md'n H	g	67 59	1·50
C. St. Geo	b	62 50	0·10
Carcoar ..	b	57 44	0
Casino ..	r	67 56	0
Cassilis ..	c	60 49	0·28
Clarence	r	77 61	0·30
C'nd'b'lin	b	71 35	0
Cooma ..	n	62 27	0
Coonab'n	b	67 45	0
Cowra ..	b	70 46	0
Deniliq'n	b	77 44	0
Dubbo ..	b	72 40	0
Eden	b	65 44	0
Euston ..	b	80 37	0
Forbes ..	b	—41	0
Gl'n Inn's	c	58 49	0
Goulburn	b	59 40	0·02
Grafton ..	c	73 58	0·66
Gulgong	b	65 39	0
Gunned'h	b	65 60	0·16
Hay	b	75 41	0
Inverell ..	b	68 51	0
Kiandra	b	51 25	0
Lismore	r	66 61	2·03
Maitland	g	61 55	2·91
Marsdens	b	70 49	0
Menindie	b	69 49	0
Molong ..	b	55 47	0
M'r'ng'r'll	b	70 45	0
Moree ..	b	77 49	0·04
Moruya ..	b	63 49	0
Moss Vale	b	55 42	0·21
Mt. Hope	b	76 54	0
M. Vict'ria	u	68 35	0·12
Mudgee	b	72 38	0
M'rr'm'bh	b	69 43	0
M'rr'r'ndi	c	55 50	0·15
Mus'll'br'k	b	62 41	0·92
Narrabri	b	73 42	0·02
Newcastle	c	64 55	2·16
Orange ..	b	57 31	0
Picton ..	b	61 40	0
P. M'q'rie	c	66 56	0·99
P. St'ph'n	c	63 52	1·15
Q'nbeyan	b	69 46	0
Quirindi	g	65 50	0
Singleton	r	58 54	1·10
Sydney ..	g	62 53	0
Tamw'rth	g	63 45	0·04
Taralga ..	b	73 40	0·15
Taree	c	67 55	1·14
T'nt'rfield	u	65 50	0·12
Wagga ..	b	74 42	0
Walcha ..	c	72 40	0·05
Walgett ..	b	73 49	0
Warrah ..	c	58 —	0
W'ntw'rth	b	74 46	0
W'll'ng'ng	b	63 49	0·07
Young ..	b	71 49	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light N. to W. winds, and smooth to moderate sea. No rain fallen. Extremes of barometers and temperature: Perth, 30·11 and 55°; Cossack, 29·92 and 73°.

South Australia.—Generally fine, with light N. to N.E. winds, fallen barometers, and smooth sea; scattered clouds on parts of the coast. One point of rain fallen at Eucla. Extremes of barometers and temperature: On the coast, Port Augusta, 30·20; Eucla, 30·05; Adelaide, 68°; and M'Donnell Bay, 57°. In Northern Territory: Daly Waters, 30·06 and 82°; Port Darwin, 29·88 and 85°.

Victoria.—Generally fine, but cloudy and hazy, with light northerly winds, almost steady barometers, and smooth sea. No rain fallen, but misty and heavy dew on the coast. Extremes of barometers and temperature: Melbourne, 30·30; Hamilton, 30·19 and 54°; Horsham, 59°.

Tasmania.—Generally fine, but cloudy, with light N.E. to N.W. winds and calm, fallen barometers, and moderate sea. Foggy and hoar frost at Southport; rough sea off Circular Heads. Extremes of barometers and temperature: Low Heads, 30·29; Southport, 30·15 and 52°; Circular Heads, 56°.

New Zealand.—Generally fine, with S. to W. winds. Strong W. wind and squally at Bluff. Thunder and hailstorms during the night at Wellington, and 0·46in. rain fallen. Barometers: Rusell, Wellington, 30°; Bluff, 29·9.

New South Wales.—West of the range fine and clear, in coast districts north of Sydney cloudy and gloomy; showery on the Clarence and Richmond Rivers; winds are fresh from N.E. to S.E.; temperature has fallen; barometers have risen on the coast, but fallen slightly in west parts; and the sea is rough north of Newcastle, and moderate to smooth in south. Rain has fallen in coast districts generally, principally in north parts, and heaviest between Newcastle and Port Macquarie, where falls of from 1 to 3 inches have been reported from eight stations. Extremes of barometers and temperature at 9 a.m.: Wollongong, 30·37; Bourke, 30·17; Port Macquarie, 63°; and Cooma, 41°. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit and mean sea level at 9 a.m., 30·352. Extra Stations: Tenterfield, calm and fine; Lawrence, rainfall 1·15 inch, and still Warialda, calm and fine; Lawrence, rainfall 1·15 inch, and still showery; Nowra, max. 72°, min. 47°; rainfall 0·50, and fine; Lake Cudgellico, max. 66°, min. 45°, and cool. For further particulars see map.

Queensland.—In south parts cloudy, in north fine, with S. to S.E. winds, and moderate to smooth sea. Rainfall: Rockhampton 0·38, Brisbane 0·33, Cape Moreton 1·39, and still showery. Extremes of barometers and temperature: Brisbane 30·09, Townsville 29·74, Cooktown 82°, and Cape Moreton 64°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N., 23, fine, smooth sea, temperature 72°; Cape Otway, S.E., 8, fine, smooth sea, temperature 65°; Melbourne, N., 13, fine and hazy, temperature 72°; Cape Schanck, N., 8, fine, but cloudy, smooth sea, temperature 60°; Wilson's Promontory, calm, fine, smooth sea, temperature 64°; Lakes Entrance, E., 18, fine, temperature 65°.

New South Wales.—Menindie, calm, fine and cloudy, temperature 67°; Wentworth, N., fine and clear, temperature 64°; Deniliquin, calm, fine, temperature 68°; Eden, N.E., 28, fine, smooth sea, temperature 60°; Moruya, N.E., 42, fine, smooth sea, temperature 60°; Cape St. George, E., 14, fine, smooth sea, temperature 63°; Sydney, E.S.E., 8, fine but cloudy, smooth sea, temperature 61°; Newcastle, S.E., 14, fine, smooth sea, temperature 62°; Port Macquarie, S.E., 42, fine, smooth sea, temperature 49°; Clarence River, S., 28, fine, heavy sea, temperature 67°; Walgett, E., fine, temperature 71°; Dubbo, N.E., 14, fine, temperature 64°.

STATE OF RIVERS.

Barwon, 28 feet 6 inches above summer level; Brewarrina, 18 feet 6 inches above summer level; Goodooga, 4 feet 3 inches above summer level; Gundagai, 6 feet 3 inches above summer level; Louth, 35 feet 8 inches above summer level; Mogil Mogil, 11 feet 6 inches above summer level; Mungindi, 15 feet above summer level; Namoi, 14 feet 10 inches above summer level; Tilpa, 38 feet 5 inches above summer level. Murrumbidgee: At Wagga, 8 feet 1 inch above summer level; at Hay, 14 feet 6 inches above summer level; at Balranald, 11 feet 5 inches above summer level. Murray: At Albury, 7 feet 10 inches above summer level; at Euston, 12 feet 9 inches above summer level. Darling: At Wentworth, 14 feet 8 inches above summer level; at Pooncarie, 22 feet 2 inches above summer level; at Menindie, 25 feet 8 inches above summer level; at Wilcannia, 34 feet 5 inches above summer level; at Bourke, 34 feet 10 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 29.

Sun rises at 5.42, sets at 6.0; Moon, 6.46 a.m., 7.12 p.m.; Mercury, 5.53 a.m., 6.0 p.m.; Venus, 5.5 a.m., 4.40 p.m.; Mars, 8.3 a.m., 9.59 p.m.; Jupiter, 6.12 a.m., 6.40 p.m.; Saturn, 1.58 a.m., 11.58 p.m. Full Moon, 13th; New Moon, 27th.

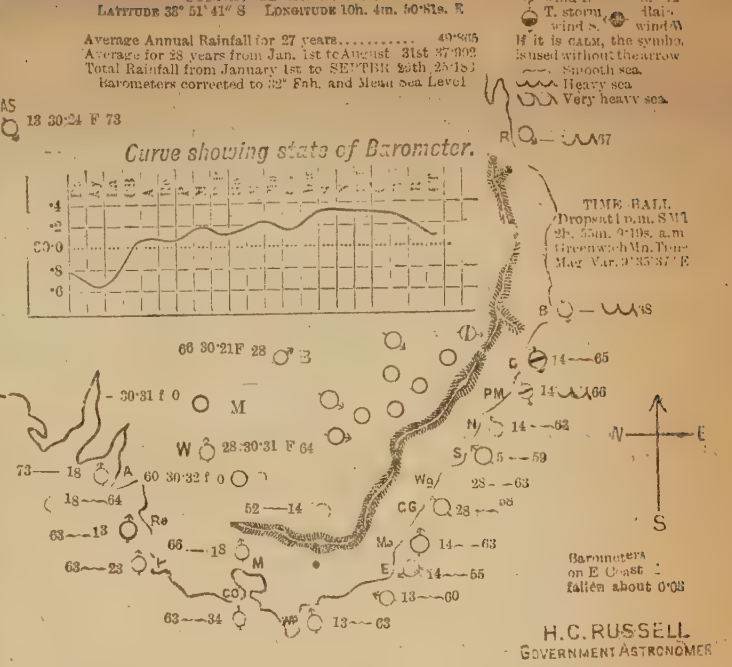
High water at Fort Denison, September 29: 9.3 a.m., 9.24 p.m.

Albury ..	b	71·49	0
Armidale	c	59 45	0
Balranald	b	86 37	0
Bathurst	b	64 34	0
Bend'm'r	b	61 39	0
Bodalla ..	b	69 36	0
Bourke ..	b	83 50	0
Br'w rrina	b	78,38	0
Bundarra	o	75 48	0
C'md'n H	g	66 52	0
C.St.Geo	b	66 51	0
Carcoar ..	b	57 46	0
Casino ..	b	68 54	0·09
Cassilis ..	f	62 43	0
Clarence	c	68 61	0
C'nd'b'lin	b	71 38	0
Cooma ..	n	71 29	0
Coonab'n	b	67 35	0
Cowra ..	b	78 47	0
Deniliq'n	b	80 43	0
Dubbo ..	b	80 40	0
Eden	b	63 44	0
Euston ..	b	87 47	0
Forbes ..	b	—38	0
Gl'n Inn's	c	65 43	0
Goulburn	b	67 32	0
Grafton ..	g	62 58	0·03
Gulgong	b	65 40	0
Gunned'h	b	73 48	0
Hay	b	76 46	0
Inverell ..	b	62 42	0
Kiandra	n	60 25	0
Lismore ..	u	68 58	0·25
Maitland	b	67 52	0
Marsdens	b	73 50	0
Menindie	b	69 56	0
Molong ..	b	55 38	0
M'r'ng'r'll	b	74 42	0
Moree ..	b	80 49	0
Moruya ..	b	67 43	0
Moss Vale	h	60 43	0
Mt. Hope	b	75 53	0
M. Vict'ria	b	54 37	0
Mudgee ..	b	70 38	0
M'rr'm'bh	b	73 42	0
M'rr'r'ndi	b	62 44	0
Mus'br'k	b	67 39	0
Narrabri	b	71 36	0
Newcastle	b	67 54	0
Orange ..	b	59 38	0
Picton ..	b	66 36	0
P. M'q'rie	c	68 55	0
P. St'ph'n	g	70 51	0
Q'nbeyan	b	61 41	0
Quirindi	b	77 49	0
Singleton	b	60 54	0
SYDNEY ..	h	64 50	0
Tamw'rth	–	—|—	–
Taralga ..	b	68 35	0
Taree	c	69 57	0·01
T'nt'rfield	c	59 50	0
Wagga ..	b	72 41	0
Walcha ..	g	55 37	0
Walgett ..	b	74 50	0
Warrah ..	b	68.—	0
W'ntw'rth	b	80 51	0
W'll'ng'ng	b	70 50	0
Young ..	b	81 38	0

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years..... 49·835
Average for 28 years from Jan. 1st to August 31st 37·992
Total Rainfall from January 1st to SEPTEMBER 30th 25·185
Barometers corrected to 32° Fah. and Mean Sea Level

T. storm Rain
wind S. wind W
If it is CALM, the symbo
is used without the arrow
Smooth sea.
Heavy sea
Very heavy sea.



H. C. RUSSELL.
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally gloomy and threatening weather, with easterly winds in north parts, W. to S.W. winds in south, fallen barometers, and moderate sea. Rainfall: Perth, 0·13; Albany, 0·05, and still showery. Extremes of barometers and temperature: Ashburton, 30·12 and 72°; Albany, 29·52; and 60° at Perth and Esperance Bay.

South Australia.—Generally fine and warm, with light N. to N.E. winds, fallen barometers, and moderate sea; sultry on the coast, the highest temperature in the shade having reached 80° and 81° at several places. Extremes of barometers and temperature: On the coast, Port Augusta, 30·14; Eucla, 29·80; Adelaide, 73°; and M'Donnell Bay, 59°. In Northern Territory: Daly Waters, 30·05 and 79°; Port Darwin, 29·88 and 81°.

Victoria.—Generally fine, with light northerly winds, steady barometers, and smooth sea. Heavy dew, and mist on the coast. Squally at Wilson's Promontory, and light rain at Echuca. Extremes of barometers and temperature: Omeo, 30·27; Portland, 30·10; Melbourne, 66°; and Lakes Entrance, 54°.

Tasmania.—Generally fine and sultry, with light scattered clouds in places, fallen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: Low Heads, 30·16 and 56°; Southport, 29·93 and 66°.

New Zealand.—Generally fine, with S.E. wind in extreme north, and westerly winds in south parts. Barometers: Rusell, 30·2; Wellington, 30·0; and Bluff, 29·9.

New South Wales.—Generally fine and warm, with light variable winds, slightly fallen barometers, and moderate sea. In North Coast districts cloudy, and rough sea between Manning and Macleay Rivers. During the last 24 hours rain has fallen at a few stations in North Coast districts. Extremes of barometers and temperature at 9 a.m.: Sydney, 30·33; Cape St. George, 30·09; Bourke and Port Macquarie, 66°; Bathurst, 47° Extra stations: Warialda, weather calm and fine; Lake Cudgellico, max. 72°, min. 43°, and fine. For further particulars see map.

Queensland.—Generally fine, with fresh S.E. to E. winds, risen barometers, and high sea; gloomy at Townsville. Rainfall: Cape Moreton, 0·08; and Brisbane, 0·01. Extremes of barometers and temperature: Brisbane, 30·27; Townsville, 29·80; Cooktown, 85°; and Cape Moreton, 63°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.W., 24, fine, smooth sea, temperature 76°; Cape Otway, N.N.W., 18, fine, smooth sea, temperature 75°; Melbourne, N., 13, fine, temperature 74°; Cape Schanck, N., 13, fine and misty, smooth sea, temperature 63°; Wilson's Promontory, N., 8, fine and sultry, smooth sea, temperature 72°; Lakes Entrance, S.E., 8, fine, temperature 69°.

New South Wales.—Menindie, N.W., fine, temperature 70°; Wentworth, N., fine, temperature 69°; Deniliquin, calm, fine, temperature 73°; Eden, N.E., 14, fine, smooth sea, temperature 62°; Moruya, N.E., 28, fine, modcrate sea, temperature 65°; Cape St. George, N., 28, fine, smooth sea, temperature 63°; Sydney, N.E., 16, fine and hazy, smooth sea, temperature 65°; Newcastle, N.E., 14, fine, smooth sea, temperature 66°; Port Macquarie, N.E., 28, cloudy, heavy sea, temperature 66°; Clarence River, S.E., 14, fine, moderate sea, temperature 69°; Walgett, N.E., fine, temperature 71°; Dubbo, calm, fine, temperature 65°; Goulburn, calm, fine, temperature 60°

STATE OF RIVERS.

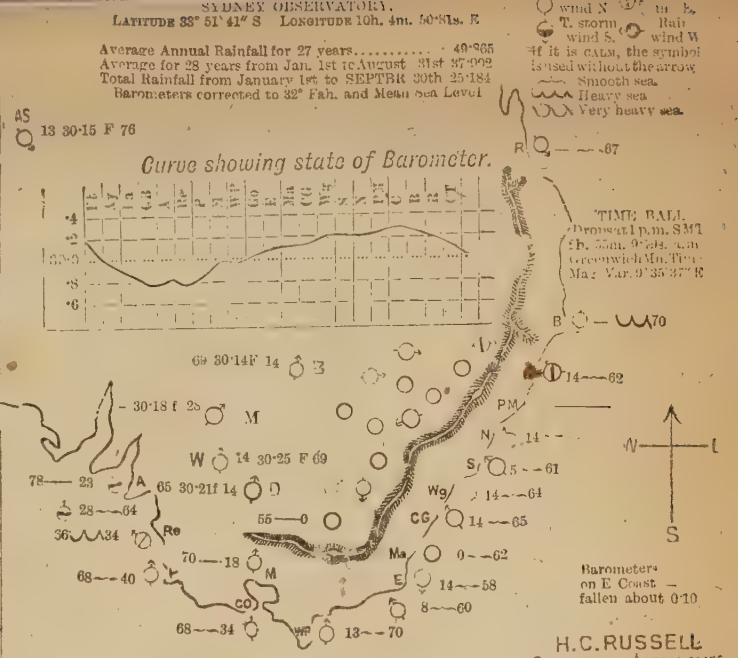
Barwon, 27 feet above summer level; Brewarrina, 18 feet above summer level; Goodooga, 4 feet 1 inch above summer level; Gundagai, 6 feet above summer level; Louth, 35 feet above summer level; Mogil Mogil, 10 feet 6 inches above summer level; Mungindi, 12 feet above summer level; Namoi, 12 feet 6 inches above summer level; Tilpa, 38 feet 5 inches above summer level. Murrumbidgee: At Wagga, 7 feet 10 inches above summer level; at Hay, 12 feet 9 inches above summer level; at Balranald, 11 feet 10 inches above summer level. Murray: At Albury, 6 feet 6 inches above summer level; at Euston, 12 feet 10 inches above summer level. Darling: At Wentworth, 14 feet 9 inches above summer level; at Pooncarie, 22 feet 2 inches above summer level; at Menindie, 25 feet 9 inches above summer level; at Wilcannia, 34 feet 5 inches above summer level; at Bourke, 34 feet 6 inches above summer level.

ASTRONOMICAL MEMORANDA FOR SEPTEMBER 30.

Sun rises at 5.40, sets at 6.0; Moon, 7.27 a.m., 8.19 p.m.; Mercury, 5.51 a.m., 6.5 p.m.; Venus, 5.4 a.m., 4.42 p.m.; Mars, 8.2 a.m., 9.58 p.m.; Jupiter, 6.9 a.m., 6.37 p.m.; Saturn, 1.54 a.m., 11.54 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, September 30: 9.45 a.m., 10.5 p.m.

Albury	b	74 46	0
Armidale	b	64 40	0
Balranald	b	90 41	0
Bathurst	b	68 35	0
Bend'm'r	b	65 39	0
Bodalla ..	b	78 38	0
Bourke ..	b	88 54	0
Br'w rrina	b	85 41	0
Bundarra	b	72 48	0
C'md'n H	—	—	—
C.St. Geo	b	66 61	0
Carcoar ..	b	60 51	0
Casino ..	c	73 56	0
Cassilis ..	b	64 41	0
Clarence	c	71 60	0·21
C'nd'b'lin	b	75 36	0
Cooma ..	b	77 39	0
Coonab'n	b	73 36	0
Cowra ..	b	75 45	0
Deniliq'n	b	84 48	0
Dubbo ..	b	76 39	0
Eden	b	63 44	0
Euston ..	b	92 52	0
Forbes ..	b	— 40	0
Gl'n Inn's	b	59 44	0
Goulburn	b	74 34	0
Grafton ..	h	70 53	0
Gulgong	b	67 38	0
Gunned'n	b	74 45	0
Hay	b	80 46	0
Inverell ..	b	62 42	0
Kiandra	n	67 24	0
Lismore	g	69 59	0·04
Maitland	b	72 48	0
Marsdens	b	77 51	0
Menindie	b	76 61	0
Molong ..	b	57 37	0
M'r'ng'r'll	b	78 41	0
Moree ..	b	80 69	0
Moruya ..	h	70 44	0
Moss Vale	b	65 43	0
Mt. Hope	b	71 52	0
M.Vict'ria	b	66 43	0
Mudgee	b	78 38	0
M'rr'm'bh	b	77 43	0
M'rr'r'ndi	b	64 46	0
Mus'br'k	b	70 38	0
Narrabri	b	73 46	0
Newcastle	b	71 53	0
Orange ..	b	60 35	0
Picton ..	b	71 39	0
P. M'q'rie	—	—	—
P. St'ph'n	b	71 46	0
Q'nbeyan	b	65 43	0
Quirindi	b	81 45	0
Singleton	b	60 51	0
SYDNEY ..	h	70 52	0
Tamw'rth	b	74 43	0
Taralga ..	b	79 39	0
Taree	—	—	—
T'nt'rfield	c	66 49	0
Wagga ..	b	78 43	0
Walcha ..	f	58 37	0
Walgett..	b	75 49	0
Warrah ..	b	73 —	0
W'ntw'rth	b	83 55	0
W'll'ng'ng	b	77 54	0
Young ..	b	85 38	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WF, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the West Coast fine, with light variable winds and smooth to moderate sea; on the South Coast showery and squally, with strong N.W. to S.W. winds and rough sea. Rainfall: Esperance Bay, 0·61; Albany, 0·41; Perth, 0·35; and Geraldton, 0·29. Extremes of barometers and temperature, Geraldton, 30·22; Carnarvon, 74°; Esperance Bay, 29·84 and 47°.

South Australia.—Generally warm, dusty, and unpleasant, with light northerly winds, fallen barometers, and moderate sea. More or less clouded on and near the coast; light scattered clouds inland. Yesterday the highest temperature in the shade at Eucla reached 100°; it is now raining lightly, 0·29 inch having fallen up to 9 a.m. Extremes of barometers and temperature: On the coast, Port Augusta, 39·90; Streaky Bay, 29·69; Eucla, 56°; and Adelaide, 78°. In Northern Territory: Daly Waters, 30·02 and 81°; Port Darwin, 29·90 and 87°.

Victoria.—Generally fine and hazy, with hot northerly winds, fallen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: Omeo, 30·15; Portland, 29·83; Lakes Entrance, 60°; Melbourne and Wilson's Promontory, 70.

Tasmania.—Generally fine and sultry, with fresh N.E. to N.W. winds, fallen barometers, and moderate sea. The sea is rough at Circular Heads, but dead calm at Falmouth. Extremes of barometers and temperature: Low Heads, 30·00 and 59°; Southport, 29·74 and 76°.

New Zealand.—Generally fine, with variable winds Barometers: Russell and Bluff, 29·8; Wellington, 29·9.

New South Wales.—Generally fine, clear, and warm, with light N.W. to S.W. winds on the coast, variable winds and calms inland, falling barometers, and smooth to moderate sea; cloudy and foggy at a few places in northern parts; heavy frost at Kiandra, and a few points of rain fallen on the Clarence and Richmond Rivers; rivers generally falling slowly. Extremes of barometers and temperature at 9 a.m.: Clarence Heads, 30·28; Forbes, 30·10; Bourke and Wentworth, 69°; Bathurst and Armidale, 49°. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit and mean sea level, at 9 a.m., 30·243. Extra stations: Warialda, calm and fine weather; Lake Cudgellico, max. 72°, min. 43°, and clear. For further particulars see map.

Queensland.—Generally cloudy and unsettled, with light E. to S.E. winds, steady barometers, and moderate sea, though still heavy off Cape Moreton. Rainfall: Cooktown, 0·23, and still raining; Townsville, 0·10; Cape Moreton, 0·06; and Brisbane, 0·03. Extremes of barometers and temperature: Brisbane, 30·25; Cape Moreton, 63°; Townsville, 29·83; and Cooktown 78°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.W., 48, fine, smooth sea, temperature 79°; Cape Otway, N., 40, hot wind and squally, smooth sea, temperature 76°; Melbourne, N., 18, fine and squally, temperature 78°; Cape Schanck, N.N.W., 23, misty and squally, moderate sea, temperature 64°; Wilson's Promontory, E., 8, fine and sultry, smooth sea, temperature 77°; Lakes Entrance, N., 18, fine and hazy, temperature 77°.

New South Wales.—Menindie, N.W., fine, temperature 74°; Wentworth, N., fine, temperature 72°; Deniliquin, N., fine and clear, temperature 76°; Eden, N.E., 14, fine, smooth sea, temperature 65°; Moruya, N.E., 42, fine and hazy, moderate sea, temperature 65°; Cape St. George, N., 42, fine, smooth sea, temperature 66°; Sydney, E.N.E., 14, fine and hazy, smooth sea, temperature 68°; Newcastle, N.E., 28, fine, smooth sea, temperature 68°; Port Macquarie, N.N.E., 42, fine, moderate sea, temperature 72°; Clarence River, E., 14, fine, moderate sea, temperature 68°; Walgett, N.E., fine, temperature 77°; Dubbo, N., 14, fine, temperature 68°; Goulburn, N.W., 14, fine, temperature 62°.

STATE OF RIVERS.

Macintyre: At Mungindi, 11 feet above summer level. Barwon: Mogil Mogil, 9 feet 6 inches above summer level; Walgett, 25 feet 6 inches above summer level. Namoi: At Walgett, 11 feet above summer level. Culgoa: At Goodooga, 4 feet above summer level. Darling: At Brewarrina, 18 feet above summer level; at Bourke, 34 feet above summer level; at Louth, 34 feet 9 inches above summer level; at Tilpa, 38 feet 3 inches above summer level; at Wilcannia, 34 feet 6 inches above summer level; at Menindie, 25 feet 10 inches above summer level; at Pooncarie, 22 feet 2 inches above summer level; Wentworth, 14 feet 10 inches above summer level. Murrumbidgee: At Gundagai, 5 feet 6 inches above summer level; at Wagga, 6 feet 11 inches above summer level; at Hay, 11 feet 3 inches above summer level at Balranald, 12 feet 3 inches above summer level. Murray: At Albury, 6 feet above summer level; at Euston, 12 feet 1 inch above summer level.

ASTRONOMICAL MEMORANDA FOR OCTOBER 1.

Sun rises at 5.39, sets at 6.1; Moon, 8.10 a.m., 9.24 p.m.; Mercury, 5.50 a.m., 6.10 p.m.; Venus, 3.4 a.m., 4.44 p.m.; Mars, 8.0 a.m., 9.58 p.m.; Jupiter, 6.5 a.m., 6.33 p.m.; Saturn, 1.51 a.m., 11.51 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 1: 10.26 a.m., 10.46 p.m.

Albury	g	77	54	0
Armidale	b	65	44	0
Balranald	u	87	63	0
Bathurst	b	74	31	0
Bend'm'r	b	70	41	0
Bodalla ..	b	82	44	0
Bourke ..	b	87	62	0
Br'w rrina	b	86	41	0
Bundarra	b	73	49	0
C'md'n H	b	71	58	0
C.St. Geo	b	71	60	0
Carcoar ..	g	64	48	0
Casino ..	b	77	51	0
Cassilis ..	b	68	65	0
Clarence	b	76	54	0
C'nd'b'lin	c	71	36	0
Cooma ..	c	77	49	0
Coonab'n	b	77	38	0
Cowra ..	b	81	52	0
Deniliq'n	h	84	59	0
Dubbo ..	b	77	41	0
Eden	b	67	56	0
Euston ..	c	90	63	0
Forbes ..	b	—	36	0
Gl'n Inn's	b	69	45	0
Goulburn	b	77	46	0
Grafton ..	b	78	54	0
Gulgong	b	76	45	0
Gunned'h	b	71	44	0
Hay	b	80	61	0
Inverell ..	b	71	42	0
Kiandra	g	65	42	0
Lismore	b	74	52	0
Maitland	b	73	50	0
Marsdens	b	78	55	0
Menindie	b	82	64	0
Molong ..	b	70	38	0
M'r'ng'r'll	c	79	59	0
Moree ..	b	78	50	0
Moruya ..	b	80	55	0
Moss Vale	b	68	49	0
Mt. Hope	g	79	57	0
M.Vict'ria	b	69	41	0
Mudgee	c	80	36	0
M'rr'm'bh	b	—	49	0
M'rr'r'ndi	b	66	48	0
Mus'br'k	b	76	41	0
Narrabri	b	77	47	0
Newcastle	b	74	54	0
Orange ..	b	63	40	0
Picton ..	b	71	39	0
P. M'q'rie	b	71	52	0
P. St'ph'n	b	73	47	0
Q'beyan	b	68	46	0
Quirindi	b	82	46	0
Singleton	b	70	57	0
Sydney ..	h	70	53	0
Tamw'rth	b	73	40	0
Taralga ..	b	75	35	0
Taree	b	80	52	0
T'nt'rfield	b	72	47	0
Wagga ..	c	81	55	0
W'lcha ..	b	67	33	0
W[illegible]tt..	b	79	56	0
Warrah ..	b	74	—	0
W'ntw'rth	c	86	65	0
W'll'ng'ng	b	73	56	0
Young ..	g	78	46	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·8s. E

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to SEPTR 30th 40·968
Total Rainfall from January 1st to OCTOBER 1st 25·184
Barometers corrected to 32° Fah. and Mean Sea Level

Fine, Cloudy
wind N wind E
T. storm, Rain
wind S. wind W
If it is CALM, the symbo is used without the arrow
Smooth sea.
Heavy sea
Very heavy sea.

AS 13 30·02 F 78

Curve showing state of Barometer.

30·0 ·4 ·2 ·8 ·6

TIME BALL.
Drops at 1 p.m. S.M.T.
2h. 55m. 9·19s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35′ E

13 30·00 F 28

29·89 f 14 M

W 28 29·88 F 69

58— 8 A 71 29·92f 14 O

13—56 Re

58—13 64—98

70—18 M

60—18 Ma

E —55

CG 14—70

Wg 14—70

28—65

13—63

CO

W 8—64

C 14—67

PM 14—65

N 14—65

S 12—69

N E S

Barometers on E Coast fallen about 0·20

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the South Coast fine and clear, with fresh southerly winds and moderate sea. Esperance Bay, 0·24 inches rain, barometer 30·19, and temperature 42°; Albany, barometer 30·27.

South Australia.—South of Beltana overcast and threatening, with rain in places, but west of Cape Borda scattered with clouds. Rain recorded on and near the coast: Greatest at Cape Borda, 0·52; at Port Lincoln, 0·44; Streaky Bay, 0·24; Wallaroo, 0·20; Adelaide, 0·32; Robe, 0·08; and M'Donnell Bay, 0·06. Winds are fresh from N.W. to S.W. Barometers have fallen, and the sea is moderate. Extremes of barometers and temperature: On the coast, Eucla, 29·95 and 55°; Robe, 29·75 and 58. In Northern Territory: Daly Waters, 29·98 and 84°; Port Darwin, 29·88 and 85°.

Victoria.—Generally overcast and gloomy, with fresh N. to N.W. winds, fallen barometers, and smooth sea. Light rain and fog on S.W. coast, squally on S.E. coast, and a few points of rain fallen at places inland. Extremes of barometers and temperature: Cape Schanck, 29·92; Portland, 29·73; Echuca, ·72; and Ballarat, 58.

Tasmania.—Generally showery and overcast, with light westerly winds, fallen barometers, and moderate sea. Rainfall: Southport, 0·35; Circular Heads, 0·07, and other stations a few points. Extremes of barometers and temperature: Circular Heads, 29·70 and 67.; Hobart, 29·59, and Southport, 46.

New Zealand.—Generally fine, with variable winds (in extreme north, moderate from S.E.; in extreme south, strong from N.W.) Barometers: Russell and Hokitika, 30·0; Wellington, 29·8; and Bluff, 29·6.

New South Wales.—Generally fine, clear, and warm, with light N. to W. winds, falling barometers, and smooth to moderate sea; cloudy and gloomy along the Victorian border; no rain fallen; rivers falling slowly. Extremes of barometers and temperature at 9 a.m.: Clarence Heads, 30·15; Eden and Gabo, 29·82; Bodalla, 74°; and Kiandra, 48. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit and mean sea level, at 9 a.m., 30·036. Extra stations: Warialda, calm and fine weather; Lake Cudgellico, max. 70°, min. 50°, and cloudy. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S., 34, showery, smooth sea, temperature 56°; Cape Otway, N.N.W., 23, cloudy, misty, smooth sea, temperature 59°; Melbourne, S.S.W., 8, gloomy, with thunder, temperature 62°; Cape Schanck, calm, cloudy, and foggy, smooth sea, temperature 63°; Wilson's Promontory, W., 8, passing showers, smooth sea, temperature 58°; Lakes Entrance, W., 23, squally, temperature 72°.

New South Wales.—Menindie, N.E., 28, fine and cloudy, temperature 77°; Wentworth, N.W., fine and clear, temperature 70°; Deniliquin, calm, dull, and sultry, temperature 80°; Eden, N.E., 14, fine, smooth sea, temperature 73°; Cape St. George, N., 14, fine, moderate sea, temperature 72°; Sydney, N.E., 19, fine and squally, smooth sea, temperature 74°; Newcastle, W., 14, fine, smooth sea, temperature 62°; Port Macquarie, N.N.E., 42, fine, smooth sea, temperature 73°; Clarence River, N.E., fine, smooth sea, temperature 70°; Walgett, N.W., fine, temperature 82°; Dubbo, N.E., 28, fine, temperature 69°; Goulburn, N., fine, temperature 66°.

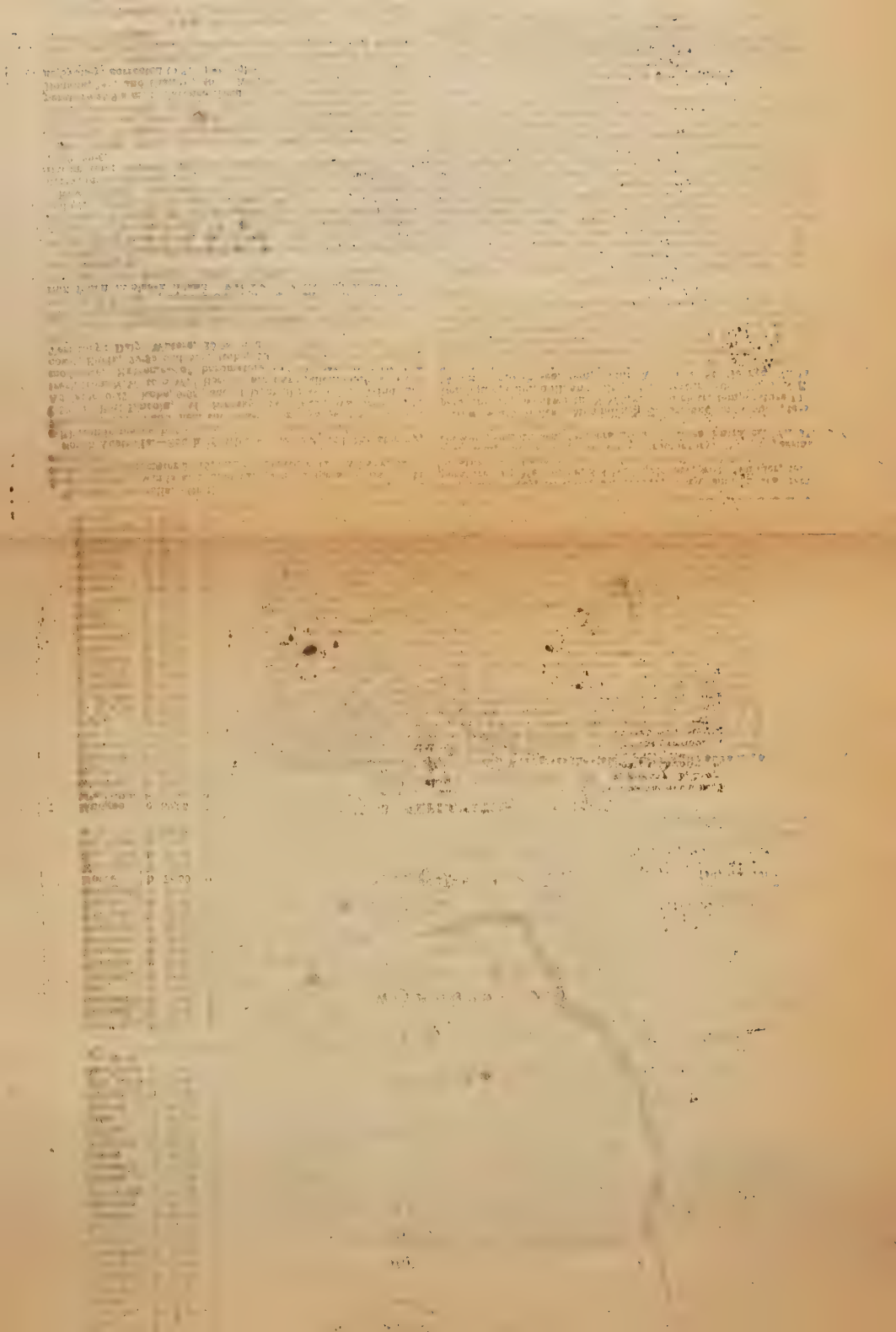
STATE OF RIVERS.

Macintyre: At Mungindi, 10 feet above summer level. Barwon: Mogil Mogil, 9 feet above summer level; Walgett, 24 feet 10 inches above summer level. Namoi: At Walgett, 9 feet 10 inches above summer level. Culgoa: At Goodooga, 3 feet 10 inches above summer level. Darling: At Brewarrina, 16 feet above summer level; at Bourke, 33 feet above summer level; at Louth, 34 feet 7 inches above summer level; at Tilpa, 38 feet 4 inches above summer level; at Wilcannia, 34 feet 6 inches above summer level; at Menindie, 25 feet 10 inches above summer level; at Pooncarie, 22 feet 2 inches above summer level; Wentworth, 14 feet 10 inches above summer level. Murrumbidgee: At Gundagai, 5 feet 3 inches above summer level; at Wagga, 6 feet above summer level; at Hay, 10 feet 2 inches above summer level; at Balranald, 12 feet 3 inches above summer level. Murray: At Albury, 5 feet 6 inches above summer level; at Euston, 13 feet above summer level.

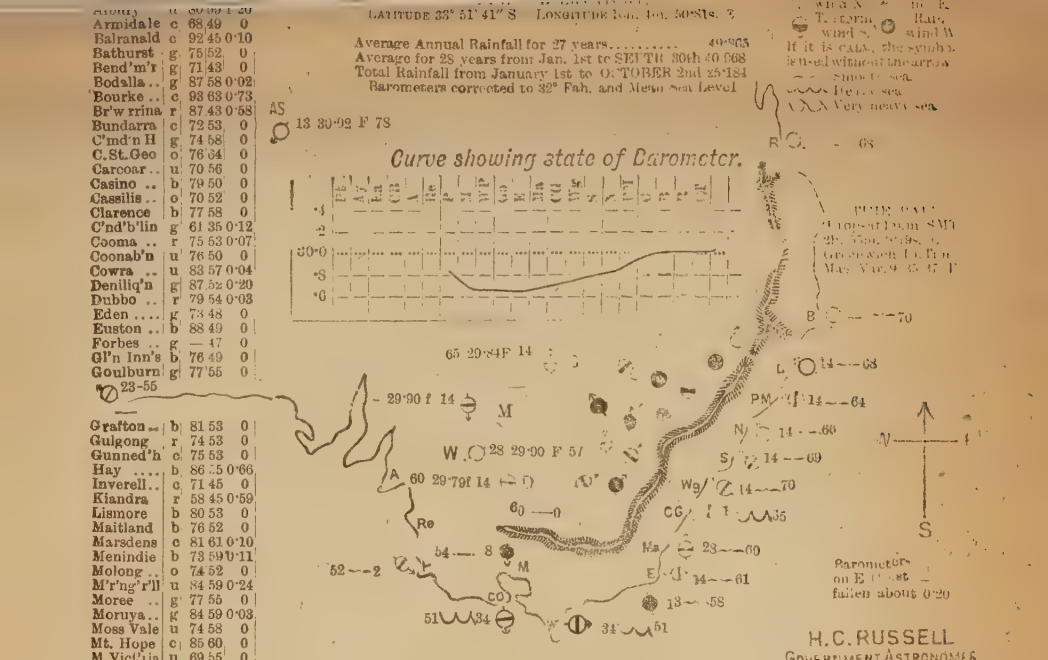
ASTRONOMICAL MEMORANDA FOR OCTOBER 2.

Sun rises at 5.58, sets at 6.2; Moon, 8.56 a.m., 10.24 p.m.; Mercury, 5.50 a.m., 6.13 p.m.; Venus, 5.3 a.m., 4.46 p.m.; Mars, 7.59 a.m., 9.58 p.m.; Jupiter, 6.1 a.m., 6.29 p.m.; Saturn, 1.47 a.m., 11.48 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 2: 11.7 a.m., 11.27 p.m.



Armidale	c	68	49	0
Balranald	c	92	45	0·10
Bathurst	g	75	52	0
Bend'm'r	g	71	43	0
Bodalla ..	g	87	58	0·02
Bourke ..	c	93	63	0·73
Br'w'rrina	r	87	43	0·58
Bundarra	c	72	53	0
C'mdn H	g	74	58	0
C.St.Geo	c	76	54	0
Carcoar ..	u	70	56	0
Casino ..	b	79	50	0
Cassilis ..	o	70	52	0
Clarence	b	77	58	0
C'nd'b'lin	g	61	35	0·12
Cooma ..	r	75	53	0·07
Coonab'n	u	76	50	0
Cowra ..	u	83	57	0·04
Deniliq'n	g	87	52	0·20
Dubbo ..	r	79	54	0·03
Eden	g	73	48	0
Euston ..	b	88	49	0
Forbes ..	g	—	47	0
Gl'n Inn's	b	76	49	0
Goulburn	g	77	55	0
Grafton ..	b	81	53	0
Guigong	r	74	53	0
Gunned'h	c	75	53	0
Hay	b	86	55	0·66
Inverell ..	c	71	45	0
Kiandra	r	58	45	0·59
Lismore	b	80	53	0
Maitland	b	76	52	0
Marsdens	c	81	61	0·10
Menindie	b	73	59	0·11
Molong ..	o	74	52	0
M'r'ng'r'll	u	84	59	0·24
Moree ..	g	77	55	0
Moruya ..	g	84	59	0·03
Moss Vale	u	74	58	0
Mt. Hope	c	85	60	0
M.Vict'ria	u	69	55	0
Mudgee	r	80	45	0
M'rr'm'bh	u	78	59	0·05
M'rr'm'ndi	o	68	56	0
Mus'br'k	b	80	46	0
Narrabri	g	71	52	0
Newcastle	b	79	—	0
Orange ..	r	67	51	0·11
Picton ..	g	81	48	0
P. M'q'rie	o	72	52	0
P. St'ph'n	o	75	49	0
Q'nbeyan	r	69	54	0·23
Quirindi	o	85	52	0
Singleton	g	65	53	0
SYDNEY ..	g	80	67	0
Tamw'rth	–	—	—	–
Taralga ..	u	75	55	0
Taree	c	82	54	0
T'nt'rfield	b	74	48	0
Wagga ..	c	84	59	0·90
Walcha ..	o	57	37	0
Walgett..	r	85	61	0
Warrah ..	–	—	—	–
W'ntw'rth	b	82	49	0
W'll'ng'ng	c	83	64	0
Young ..	g	79	75	0·01



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; rn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: P, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In north parts fine, with light east wind and moderate sea. In south light variable winds and calm, with gloomy and showery weather and smooth sea. Extremes of barometer and temperature: Perth, 30·35; Cossack, 30·01; Ashburton, 75°; and Esperance Bay, 49°.

South Australia.—Generally cloudy and unsettled south of Beltana, with light N. to N.W. winds in north parts; S.W. to S.E. winds in south. Showery and light rain in places. Rain has fallen south of Quorn, heaviest over Mount Lofty Ranges and on the coast. Queenscliffe, 0·88; Elliston, 0·58; Woodside, 0·44. On the coast squally and moderate sea. Extremes of barometers and temperature: Eucla, 30·19 and 57°; Robe, 27·84 and 48°. In Northern Territory: Daly Waters, 29·90 and 85°; Port Darwin, 29·88 and 86°.

Victoria.—Generally overcast and threatening, with heavy rain in places, fresh S. to S.E. winds, and rough sea. Squally and misty on the coast. Rainfall: Omeo, 1·03; Echuca, 0·00; Portland, 0·42; Wilson's Promontory, 0·32; Melbourne, 0·24; Hamilton, 0·23. Extremes of barometers and temperature: Cape Otway 29·88; Melbourne, 29·70; Horsham, 63°; and Ballarat, 48°.

Tasmania.—Generally threatening and rain, with fresh S.E. to S.W. winds, steady barometers, and moderate sea. Rainfall: Circular Heads and Southport, 0·10; Hobart, 0·41; and Falmouth, 0·08. Extremes of barometers and temperature: Southport, 29·95; Circular Heads, 29·87 and 48.; Hobart, 50°

New Zealand.—Generally cloudy, with strong, squally N.W. to to S.W. winds. Passing showers at Bluff, and on the West Coast. Barometers: Russell, 30·0; Wellington, 29·6; and Bluff, 29·5.

Queensland.—Generally fine, with light S. to S.E. winds, fallen barometers, and moderate sea. Rainfall, 0·21. Extremes of barometers and temperature: Cooktown, 30·06 and 83°; Townsville, 29·64; and Cape Moreton, 66°.

New South Wales.—Generally overcast and threatening rain, except in extreme N.E. and S.W. parts, where it is fine, with light N. to W. winds, fallen barometers and moderate sea. Showery along the western slope of the range, and on the Castlereagh and Barwon Rivers. During the last 24 hours rain has fallen in south parts generally; heaviest near the range, where above an inch has been recorded. Extremes of barometers and temperature: Clarence Heads, 30·01; Forbes, 29·63; Wollongong, 70.; Kiandra, 47· Reading of standard barometer at Sydney corrected to 32· Fahrenheit and mean sea level, at 9 a.m., 29·814. Extra stations: Coonamble, raining heavily; Wilcannia, 0·71 inch rain fallen. Lake Cuggellico, max. 82·, min. 58·. Rainfall, 0·21 and threatening. For further particulars see map.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, W., 14, fine, temperature 68°; Wentworth, S.W., fine, temperature 64°; Deniliquin, calm, fine, temperature 67°; Eden, S.W., 14, raining, lively sea, temperature 62°; Moruya, N.E., 24, cloudy, moderate sea, temperature 67°; Cape St. George, calm, cloudy, heavy N.E. swell, temperature 67°; Sydney, N.E., 10, cloudy, smooth sea, temperature 70°; Newcastle, N.W., 10, cloudy, smooth sea, temperature 72°; Port Macquarie, N.W., 28, cloudy, smooth sea, temperature 75°; Clarence River, N.E., 20, fine, smooth sea, temperature 72°; Walgett, N.E., like rain, temperature 67°; Dubbo, N.N.W., 14, cloudy; Goulburn, N.W., 10, fine, temperature 66°.

STATE OF RIVERS.

Macintyre: At Mungindi, 10 feet above summer level. Barwon: Mogil Mogil, 9 feet above summer level; Walgett, 22 feet 8 inches above summer level. Namoi: At Walgett, 8 feet above summer level. Culgoa: At Goodooga, 3 feet 9 inches above summer level. Darling: At Brewarrina, 15 feet 6 inches above summer level: at Bourke, 32 feet 8 inches above summer level; at Louth, 34 feet 5 inches above summer level; at Tilta, 33 feet 3 inches above summer level; at Wilcannia, 34 feet 3 inches above summer level; at Menindie, 26 feet inches above summer level; at Pooncarie, 22 feet 2 inches above summer level; at Wentworth, 15 feet above summer level. Murrumbidgee: At Gundagai, 5 feet above summer level; at Wagga, 5 feet 10 inches above summer level; at Hay, 9 feet 11 inches above summer level; at Balranald, 12 feet 5 inches above summer level. Murray: At Albury, 6 feet above summer level; at Euston, 13 feet above summer level.

ASTRONOMICAL MEMORANDA FOR OCTOBER 4.

Sun rises at 5.35, sets at 6.3; Moon, 10.3 a.m.; Mercury, 5.51 a.m., 6.20 p.m.; Venus, 5.2 a.m., 4.50 p.m.; Mars, 7.56 a.m., 9.57 p.m.; Jupiter, 5.2 a.m., 6.21 p.m.: Saturn, 1.39 a.m., 11.41 a.m. Full Moon, 13th; New Moon, 27th.

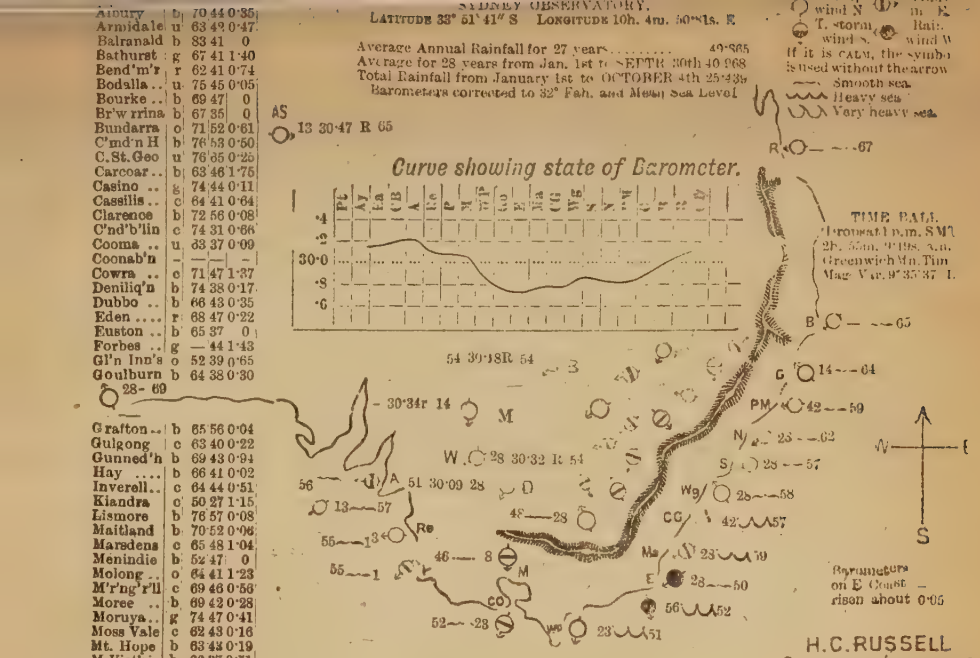
High water at Fort Denison, October 4: 12.11 a.m., 12.34 p.m.

Albury	b	70	44	0·35
Armidale	u	63	49	0·47
Balranald	b	83	41	0
Bathurst	g	67	41	1·40
Bend'm'r	r	62	41	0·74
Bodalla ..	u	75	45	0·05
Bourke ..	b	69	47	0
Br'w'rrina	b	67	35	0
Bundarra	o	71	52	0·61
C'md'n H	b	76	53	0·50
C.St.Geo	u	76	55	0·25
Carcoar ..	b	63	46	1·75
Casino ..	g	74	44	0·11
Cassilis ..	c	64	41	0·64
Clarence	b	72	56	0·08
C'nd'b'lin	c	74	31	0·66
Cooma ..	u	63	37	0·09
Coonab'n	–	–	–	–
Cowra ..	c	71	47	1·37
Deniliq'n	b	74	38	0·17
Dubbo ..	b	66	43	0·35
Eden	r	68	47	0·22
Euston ..	b	65	37	0
Forbes ..	g	—	44	1·43
Gl'n Inn's	o	52	39	0·65
Goulburn	b	64	38	0·30
Grafton ..	b	65	56	0·04
Gulgong	c	63	40	0·22
Gunned'h	b	69	43	0·94
Hay	b	66	41	0·02
Inverell ..	c	64	44	0·51
Kiandra	c	50	27	1·15
Lismore ..	b	76	57	0·08
Maitland	b	70	52	0·06
Marsdens	c	65	48	1·04
Menindie	b	52	47	0
Molong ..	o	64	41	1·23
M'r'ng'r'll	c	69	46	0·56
Moree ..	b	69	42	0·28
Moruya ..	g	74	47	0·41
Moss Vale	c	62	43	0·16
Mt. Hope	b	63	43	0·19
M. Vict'ria	b	66	37	0·71
Mudgee	c	71	39	0·74
M'rr'm'bh	c	67	48	0·43
M'rr'r'ndi	r	62	48	0·70
Mus'br'k	b	68	46	0·30
Narrabri	g	69	42	0·30
Newcastle	b	65	51	0·08
Orange ..	c	62	37	2·02
Picton ..	g	71	49	0·70
P. M'q'rie	b	66	46	0·56
P. St'ph'n	b	65	50	0·15
Q'nbeyan	c	66	44	1·43
Quirindi	o	63	41	2·06
Singleton	b	65	53	0·40
SYDNEY ..	b	73	53	0·26
Tamw'rth	g	61	46	0·95
Taralga ..	b	69	37	0·60
Taree	b	66	53	0·55
T'nt'rfield	u	59	50	0·84
Wagga ..	u	68	41	1·12
Walcha ..	u	57	35	0·78
Walgett ..	b	70	46	0·45
Warrah ..	g	64	—	0
W'ntw'rth	b	65	43	0
W'll'ng'ng	b	74	53	0
Young ..	g	69	42	0·81

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·8s. E

Average Annual Rainfall for 27 years ..... 49·865
Average for 28 years from Jan. 1st to SEPTR 30th 40·968
Total Rainfall from January 1st to OCTOBER 4th 25·435
Barometers corrected to 32° Fah. and Mean Sea Level



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; h, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with its means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:— P, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—No reports.

South Australia.—Generally fine, with scattered clouds, light N.W. to S.W. winds, risen barometers, and moderate sea. Rain has fallen south of Beltana, and it is still raining in places. The heaviest fall took place at Wilmington, where 0·92 inch fell, and at Yorktown 0·81; but generally the falls have been less than a quarter of an inch. Extremes of barometers and temperature: On the coast—Port Augusta, 30·35; Robe, 30·16; M'Donnell Bay, 51°; and Eucla, 69°. In Northern Territory—Daly Waters, 30·23 and 72°; Port Darwin, 29·87 and 83°.

Victoria.—Generally unsettled and overcast, with fresh S. to W. winds, risen barometers, and moderate to rough sea. Showery at Lakes Entrance, Ballarat, and Cape Schanck. Rainfall: Omeo, 0·35; Ballarat, 0·63; and Wilson's Promontory, 3·20. Extremes of barometers and temperature: Horsham, 30·18 and 56°; Omeo, 29·99 and 45°.

Tasmania.—Generally unsettled, with light southerly winds, risen barometers, and smooth sea. Passing showers at Hobart, 0·05 inch already fallen. Rough sea at Falmouth. Extremes of barometers and temperature: Southport, 29·96 and 51°; Hobart, 29·95 and 48°.

New Zealand.—Generally fine, with N.W. to S.W. winds. Showery at Wellington. Strong west wind at Gisbourne. Barometers: Russell, 30·0; Gisbourne, 29·8; Wellington and Bluff, 29·7.

New South Wales.—Generally cloudy and unsettled, with fresh, cold S. to W. winds, rising barometers, fallen temperature, and smooth to moderate sea. Passing showers, with strong westerly winds, and rough sea on the coast in south. During the last 48 hours rain has fallen generally throughout the colony; heaviest along the western slope of the mountains, where 14 stations report falls of from one to over two inches. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·34; Eden, 29·77; Clarence, 64°; and Mount Victoria, 41. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit and mean sea level, at 9 a.m., 29·845. Extra Stations: Lake Cudgellico, maximum 58, minimum 40, rainfall 0·10, and threatening; Hill End, 1.65 inch; Temora, terrific storm from N.W., 1·08 inch rain fallen; Kiandra, half-inch snow fallen. (For further particulars see map.)

Queensland.—Generally fine, with fresh S.E. to S.W. winds, risen barometers, and moderate sea. Rainfall: Townsville, 0·78; Rockhampton, 0·13; and Brisbane, 0·03. Extremes of barometers and temperature: Cooktown, 30·15 and 81°; Townsville, 29·71; and Cape Moreton, 58°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.S.W., fine, smooth sea, temperature 59°; Cape Otway, N.W., 30, threatening rain, smooth sea; Melbourne, S., 12, gloomy, temperature 56°; Cape Schanck, S.W., 6, fine, smooth sea, temperature 56°; Wilson's Promontory, W., 24, squally, moderate sea, temperatnre 55°; Lake's Entrance, S.W., 30, showery, temperature 54°.

New South Wales.—Menindie, S.W., 2, fine, temperature 62°; Wentworth, W., 1, fine, temperature 58°; Deniliquin, S.W., 1, fine, temperature 61°; Eden, S.W., 3, fine, moderate sea, temperature 61°; Moruya, S., 42, fine, rough sea, temperature 63°; Cape St. George, S., 4, fine, heavy sea, temperature 61°; Sydney, S., 4, cloudy, smooth sea, temperature 60°; Newcastle, S., 4, dull, smooth sea, temperature 64°; Port Macquarie, S., 3, fine, smooth sea, temperature 69°; Clarence River, S.W., fine, smooth sea, temperature 73°; Walgett, S.W., fine, temperature 62°; Dubbo, S., 1, fine, temperature 57°; Goulburn, N.W., fine, temperature 58°.

STATE OF RIVERS.

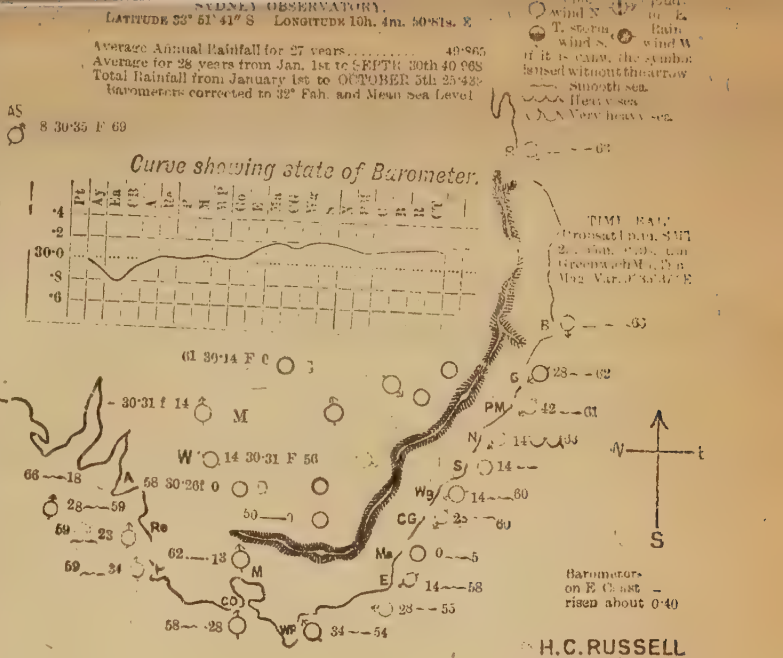
Macintyre: At Mungindi, 11 feet 6 inches above summer level. Barwon: Mogil Mogil, 9 feet above summer level; Walgett, 18 feet above summer level. Namoi: At Walgett, 5 feet above summer level. Culgoa: At Goodooga, 3 feet 8 inches above summer level. Darling: At Brewarrina, 14 feet 9 inches above summer level; at Bourke, 31 feet 6 inches above summer level; at Louth, 33 feet 11 inches above summer level; at Tilba, 38 feet above summer level; at Wilcannia, 34 feet 6 inches above summer level; at Menindie, 26 feet 4 inches above summer level; at Wentworth, 15 feet 2 inches above summer level. Murrumbidgee: At Gundagai, 8 feet 6 inches above summer level; at Wagga, 10 feet 6 inches above summer level; at Hay, 10 feet above summer level; at Balranald, 12 feet 5 inches above summer level. Murray: At Albury, 8 feet above summer level; at Euston, 13 feet 2 inches above summer level.

ASTRONOMICAL MEMORANDA FOR OCTOBER 5.

Sun rises at 5.33, sets at 6.4; Moon, 11.24 a.m.. sets at 12.15 a.m.; Mercury, 5.51 a.m., 6.24 p.m.; Venus, 5.1 a.m., 4.52 p.m.; Mars, 7.54 a.m., 9.56 p.m.; Jupiter, 5.48 a.m., 6.17 p.m.; Saturn, 1.35 a.m., 11.37 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 5: 12.57 a.m., 1.25 p.m.

Albury	b	61	41	0
Armidale	b	54	36	0·03
Balranald	b	74	31	0
Bathurst	b	52	32	0·02
Bend'm'r	n	56	33	0
Bodalla ..	b	70	34	0
Bourke ..	b	69	49	0
Br'w rrina	b	67	36	0
Bundarra	b	62	44	0
C'md'n H	c	68	53	0
C.St.Geo	b	63	57	0
Carcoar ..	b	58	42	0
Casino ..	b	73	41	0
Cassilis ..	n	56	40	0
Clarence	b	75	52	0
C'nd'b'lin	b	73	36	0
Cooma ..	n	57	30	0
Coonab'n	b	61	36	0
Cowra ..	b	53	42	0
Deniliq'n	b	65	38	0
Dubbo ..	b	60	32	0
Eden	b	60	48	0·03
Euston ..	b	73	34	0
Forbes ..	b	—	41	0
Gl'n Inn's	b	53	35	0
Goulburn	b	59	35	0
Grafton ..	b	75	46	0
Gulgong	b	53	36	0
Gunned'h	b	68	38	0
Hay	b	66	40	0
Inverell ..	b	61	34	0
Kiandra	n	57	30	0·45
Lismore	b	73	50	0
Maitland	b	70	45	0
Marsdens	b	59	44	0
Menindie	b	62	48	0
Molong ..	b	57	35	0
M'r'ng'r'll	b	66	40	0
Moree ..	b	67	38	0
Moruya ..	b	68	42	0
Moss Vale	b	57	40	0
Mt. Hope	b	59	43	0
M. Vict'ria	b	50	36	0
Mudgee	b	63	30	0
M'rr'm'bh	b	50	39	0
M'rr'r'ndi	n	57	42	0
Mus'br'k	b	70	34	0
Narrabri	b	66	39	0
Newcast'e	b	70	47	0
Orange ..	b	49	36	0
Picton ..	b	65	36	0
P. M'q'rie	b	69	45	0
P. St'ph'n	c	65	44	0
Q'nbeyan	b	61	41	0
Quirindi	u	63	39	0
Singleton	b	65	51	0
SYDNEY ..	b	64	49	0
Tamw'rth	n	58	33	0
Taralga ..	b	65	38	0
Taree	b	69	51	0
T'nt'rfield	b	65	56	0
Wagga ..	b	63	43	0
Walcha ..	b	49	28	0·04
Walgett ..	b	64	44	0
Warrah ..	b	59	—	0
W'ntw'rth	b	69	45	0
W'll'ng'ng	b	67	50	0
Young ..	b	64	35	0



H.C. RUSSELL
GOVERNMENT ASTRONOMER

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In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. In and the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Rhee Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along westwards; northerly winds preceding them, and southerly following.

Western Australia.—In north parts fine, with S.E. to E. winds, and smooth sea; in south overcast and threatening, with strong W. to S.W. winds, and high sea. Fierce squalls at Albany, and 1·80 inch rain fallen. Extremes of barometers and temperature: Geraldton, 30·28; Esperance Bay, 29·87 and 46°; Ashburton, 72°.

South Australia.—Fine, clear, and pleasant throughout, with fresh N. to N.W. winds, and moderate sea. Stormy at Eucla; rough sea at Cape Borda; and 0·03 inch rain fallen at Adelaide. Extremes of barometers and temperature: On the coast—Port Augusta, 30·16; Eucla, 29·77 and 79°; M'Donnell Bay, 58°. In Northern Territory—Daly Waters, 30·15 and 77°; Port Darwin, 29·99 and 83°.

Victoria.—Generally fine and clear, with fresh N. to N.W. winds, fallen barometers, and moderate sea. Squally on the coast. Rainfall: 0·01 inch at Wilson's Promontory and Hamilton. Extremes of barometers and temperature: Horsham, 30·17; Wilson's Promontory, 30·01; Melbourne, 62°; and Omeo, 47°.

Tasmania.—Generally cloudy and unsettled, with light westerly winds and calms, fallen barometers, and moderate sea. Rough sea at Falmouth. 0·10 inch rain fallen at Southport. Extremes of barometers and temperature: Circular Head, 30·00 and 58°; Southport, 29·89 and 40°.

New Zealand.—Generally fine, with strong N.W. to S.W. winds in north parts, and moderate S.E. wind at Bluff. Heavy showers, and 1·60 inch already fallen at Wellington. Barometers: In extreme north and south, 29·5; at Wellington, 29·2.

New South Wales.—Generally fine and cold, with light variable winds and calms, rising barometers, and smooth sea. Frosty on the range; heavy sea off Newcastle and Port Stephens. During the last 24 hours rain has fallen at a few places on and near the range. Extremes of barometers and temperature at 9 a.m.: Wentworth and Menindie, 30·31; Gabo, 30·03; Newcastle, 63°; Mount Victoria, and Armidale, 45°. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit and mean sea level, at 9 a.m., 30·217. Extra Stations: Coonabarabran, rainfall on the 3rd and 4th, 1·82 inch. Lake Cudgellico, maximum 70, minimum 39, and and fine. (For further particulars see map.)

Queensland.—Generally fine, with light S. to S.E. winds, and moderate sea. Squally with rough sea at Cooktown. Extremes of barometers and temperature: Rockhampton, 30·20; Townsville, 29·69; and Cape Moreton, 58°, and Cooktown, 79°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.W., 34, fine, smooth sea, temperature 72°; Cape Otway, N.N.W., 34, gale, sea rising, temperature 69°; Melbourne, N., 18, fine, temperature 69°; Cape Schanck, N.N.E., 23, fine, moderate sea, temperature 59°; Wilson's Promontory, S.E., 13, fine but cloudy, moderate sea, temperature 65°; Lake's Entrance, S.E., 13, fine, temperature 68°.

New South Wales.—Menindie, N.W., 14, fine and clear, temperature 66°; Wentworth, N., fine and clear, temperature 63°, Deniliquin, S., fine, temperature 67°; Eden, N.E., 14, fine, smooth sea, temperature 59°; Moruya, N.E., 28, fine, moderate sea, temperature 66°; Cape St. George, E., 28, fine, moderate sea, temperature 62°; Sydney, E., 14, fine and hazy, smooth sea, temperature 62°; Newcastle, S.E., 14, fine, heavy sea, temperature 64°; Port Macquarie, S.S.E., 42, fine, moderate sea, temperature 71°; Clarence River, S., fine, moderate sea, temperature 67°; Dubbo, calm, fine, temperature 61°; Goulburn, N.W., 14, fine, temperature 59°.

STATE OF RIVERS.

Macintyre: At Mungindi, 12 feet above summer level. Barwon: Mogil Mogil, 9 feet above summer level; Walgett, 16 feet 2 inches above summer level. Namoi: At Walgett, 4 feet above summer level. Culgoa: At Goodooga, 3 feet 7 inches above summer level. Darling: At Brewarrina, 14 feet above summer level; at Bourke, 30 feet 8 inches above summer level; at Louth, 33 feet 8 inches above summer level; at Tilpa, 37 feet 10 inches above summer level; at Wilcannia, 34 feet 6 inches above summer level; at Menindie, 26 feet 5 inches above summer level; at Pooncarie, 22 feet 3 inches above summer level; at Wentworth, 15 feet 3 inches above summer level. Murrumbidgee: At Gundagai, 9 feet above summer level; at Wagga, 12 feet above summer level; at Hay, 9 feet 9 inches above summer level; at Balranald, 12 feet 5 inches above summer level. Murray: At Albury, 9 feet 9 inches above summer level; at Euston, 13 feet 3 inches above summer level.

ASTRONOMICAL MEMORANDA FOR OCTOBER 6.

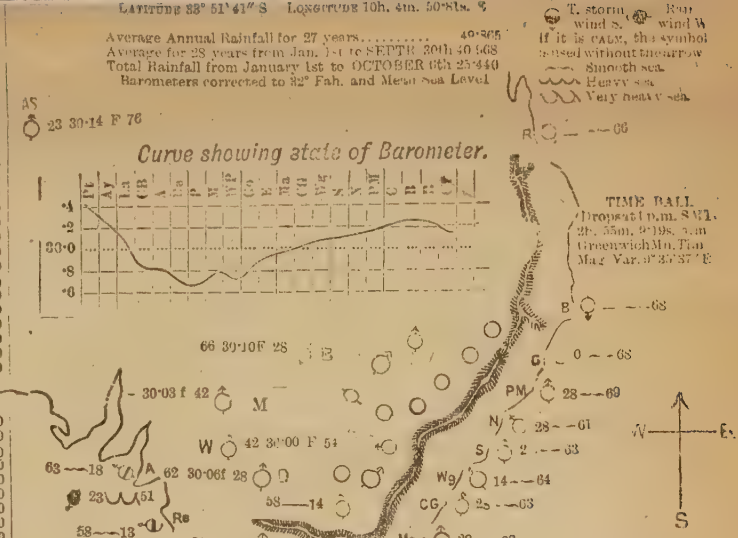
Sun rises at 5.32, sets at 6.5; Moon, 12.15 a.m., sets at 1.4 a.m.; Mercury, 5.51 a.m., 6.27 p.m.; Venus, 5 a.m., 4.54. p.m.; Mars, 7.53 a.m., 9.56 p.m.; Jupiter, 5.44 a.m., 6.13 p.m.; Saturn, 1.31 a.m., 11.34 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 6: 1.52 a.m., 2.25 p.m.

Armidale	b	62	40	0
Balranald	b	84	47	0
Bathurst	b	67	36	0
Rend'm'r	b	70	36	0
Bodalla ..	b	70	36	0
Bourke ..	b	76	54	0
Br'w rrina	b	79	37	0
Bundarra	b	68	48	0
C'md'n H	b	68	49	0
C. St. Geo	b	67	61	0
Carcoar ..	b	57	42	0
Casino ..	b	76	45	0
Cassilis ..	b	62	42	0
Clarence	b	72	56	0
C'nd'b'lin	b	81	36	0
Cooma ..	c	75	43	0
Coonab'n	n	70	35	0
Cowra ..	b	74	43	0
Deniliq'n	b	77	45	0
Dubbo ..	b	71	35	0
Eden	b	67	55	0
Euston ..	b	93	51	0
Forbes ..	b	—	44	0
Gl'n Inn's	b	71	34	0
Goulburn	b	69	37	0
Grafton ..	b	80	51	0
Gulgong	b	65	34	0
Gunned'h	b	71	42	0
Hay	b	72	48	0
Inverell ..	b	66	40	0
Kiandra	c	65	35	0
Lismore	b	78	51	0
Maitland	b	69	45	0
Marsdens	b	70	49	0
Menindie	b	73	57	0
Molong ..	b	59	36	0
M'r'ng'r'll	b	53	41	0
Moree ..	b	77	43	0
Moruya ..	b	66	45	0
Moss Vale	b	64	43	0
Mt. Hope	b	—	—	0
N. Vict'ria	b	65	39	0
Mudgee	b	72	32	0
M'rr'm'bh	b	71	42	0
M'rr'ndi	b	62	41	0
Mus'll'br'k	b	73	36	0
Narrabri	b	72	43	0
Newcastle	b	70	50	0
Orange ..	b	58	35	0
Picton ..	b	70	39	0
P. M'q'rie	h	68	47	0
P. St'ph'n	h	78	44	0
Q'nbeyan	b	61	43	0
Quirindi	b	80	42	0
Singleton	b	68	50	0
SYDNEY ..	h	65	49	0
Tamw'rth	b	69	39	0
Taralga ..	b	75	32	0
Taree	b	75	49	0
T'nt'rfield	b	71	60	0
Wagga ..	b	72	43	0
Walcha ..	n	60	28	0
Walgett ..	b	71	46	0
Warrah ..	b	68	—	0
W'ntw'rth	b	79	56	0
W'll'ng'ng	b	73	49	0
Young ..	b	77	38	0

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years..... 40·365
Average for 28 years from Jan. 1st to SEPTR 30th 40·568
Total Rainfall from January 1st to OCTOBER 6th 25·440
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with [illegible] weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland, M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Swinton, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along westwards; northerly winds preceding them, and southerly following.

Western Australia.—In north, fine and clear, with light S.E. to E. winds and moderate sea; on south coast, cloudy and gloomy, with strong, squally S.W. to S. winds and rough sea. Rainfall: Esperance Bay, 0·42; Albany, 0·03 inch. Extremes of barometers and temperature:—Geraldton, 30·41; Cossack, 29·90 and 73°; Perth, 49°.

South Australia.—Fine and clear inland and in Northern Territory; on and near the coast, overcast and gloomy, with light rain in places, fallen barometers, and moderate to rough sea. Rainfall: Cape Borda, 0·13; Port Lincoln, 0·09; and Streaky Bay, 0·05. Extremes of barometers and temperature:—On the coast: Eucla, 30·15; M'Donnell Bay, 29·66; Adelaide, 63°; and Cape Borda, 51°. In Northern Territory: Daly Waters, 30·10 and 76°; Port Darwin, 29·98 and 88°.

Victoria.—Generally fine, with fresh northerly winds, fallen barometers, and moderate sea. Fierce squalls on the coast. Extremes of barometers and temperature: Omeo, 29·91 and 58°; Wilson's Promontory, 29·72; and Melbourne 66°.

Tasmania.—Cloudy on north coast, fine on east with fresh northerly winds, fallen barometers, and moderate sea. Rough sea at Circular Heads; blowing a gale at Hobart. Extremes of barometers and temperature: Southport, 29·96 and 68°; Falmouth, 29·74 and 56°.

New Zealand.—Generally fine, with variable winds; blowing rather strong from W. at Russell. Barometers: Russell and Wellington 29·7, Bluff 29·8.

New South Wales.—Generally fine, clear, and warm, with light variable winds and calms, fallen barometers, and smooth sea. No rain fallen, and rivers falling slowly. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·17; Eden, 29·97; Port Macquarie, 69°, and Kiandra, 51°. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit and mean sea level, 30·199. Extra stations: Nowra, maximum 76°, minimum 44°. Fine and clear. Lake Cudgellico: Maximum 71°, minimum 38°, and fine (For further particulars see map.)

Queensland.—Generally fine and clear, with light S. to E. winds, steady barometers, and moderate sea. Strong winds in squalls from S.E., and rough sea at Cooktown. Extremes of barometers and temperature: Brisbane, 30·25; Cape Moreton, 66°; Townsville, 29·74; and Cooktown, 80°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 28, passing showers, smooth sea, temperature 55°; Cape Otway, W.N.W., 40, light rain, rough sea, temperature 53°; Melbourne, N., 28, fine and squally, temperature 74°; Cape Schanck, W., 23, fine, cloudy and misty, moderate sea, temperature 61°; Wilson's Promontory, N., 23, squally, moderate sea, temperature 75°; Lake's Entrance, N., 13, fine, temperature 72°.

New South Wales.—Menindie, N.N.W., fine, temperature 70°; Wentworth, N., clear and warm, temperature 69°; Deniliquin, calm, fine, temperature 73°; Eden, N.E., 28, fine, smooth sea, temperature 68°; Moruya, N.N.W., 42, fine, moderate sea, temperature 74°; Cape St. George, N., 28, fine, smooth sea, temperature 63°; Sydney, N.E., 13, fine, smooth sea, temperature 72°; Newcastle, N.E., 14, fine, smooth sea, temperature 9°; Port Macquarie, N.N.E., 42, fine and hazy, maximum temperature 71°; Dubbo, N.W., 11, fine, temperature 6.5°; Burn, N.W., fine, temperature 63°.

STATE OF RIVERS.

Macintyre: At Mungindi, 12 feet 6 inches above summer level. Barwon: At Mogil Mogil, 10 feet; Walgett, 14 feet. Namoi: At Walgett, 3 feet. Culgoa: At Goodooga, 3 feet 6 inches. Darling: At Brewarrina, 12 feet; at Bourke, 29 feet 8 inches; at Louth, 33 feet 5 inches; at Tilpa, 37 feet 9 inches; at Wilcannia, 34 feet 6 inches; at Menindie, 26 feet 7 inches; at Pooncarie, 22 feet; at Wentworth, 15 feet 4 inches. Murrumbidgee: At Gundagai, 8 feet; at Wagga, 11 feet 8 inches; at Hay, 9 feet 6 inches; at Balranald, 12 feet 6 inches. Murray: At Albury, 10 feet 10 inches; at Euston, 13 feet 4 inches.

ASTRONOMICAL MEMORANDA FOR OCTOBER 7.

Sun rises at 5.31, sets at 6.6; Moon, 1.8 p.m., sets at 1.49 a.m.; Mercury, 5.51 a.m., 6.31 p.m.; Venus, 5 a.m., 4.56 p.m.; Mars, 7.51 a.m., 9.55 p.m.; Jupiter, 5.39 a.m., 6.9 p.m.; Saturn, 1.28 a.m., 11.30 a.m. Full Moon, 13th; New Moon, 27th. High water at Fort Denison, October 7: 2.57 a.m., 3.32 p.m.

METEOROLOGICAL ABSTRACT—SEPTEMBER, 1886,

with results for the same month during the preceding 27 years.

—	Barometer at 32° Fah. and mn. sea lev'l.	Temperature in Shade.			Rainfall	
		Mean Max.	Mean Min.	Mean.	Amount in Inches.	Days.
1886:						
September ..	30·108	66·8	51·3	58·9	0·770	
Average for 28 years ...	30·049	66·6	51·1	58·8	3·066	[illegible]
Monthly Extremes:						
Highest ...	30·240	71·4	53·9	61·7	14·045	[illegible]
Year ...	1871	1865	1879	1885	1879	[illegible]
Lowest ...	29·861	62·1	48·5	56·7	0·083	
Year ...	1874	1864	1875	1869	1882	

Wind.—Prevailing direction, W.; average prevailing direction for 28 years, W.; September, 1886, mean miles per hour [illegible]

Temperature.—Highest shade temperature, 75·4 on the highest shade temperature in any September since 18[illegible] on the 24th, 1882. Lowest shade temperature, 44·7 on the lowest shade temperature in any September since 1859, 10 [illegible] 18th, 1864.

Rainfall.—Greatest fall in one day 0·520 on the 27th; fall in one day in any September since 1859, 5·691 on 1879.

H. C. RUSSELL, Government Astronomer.

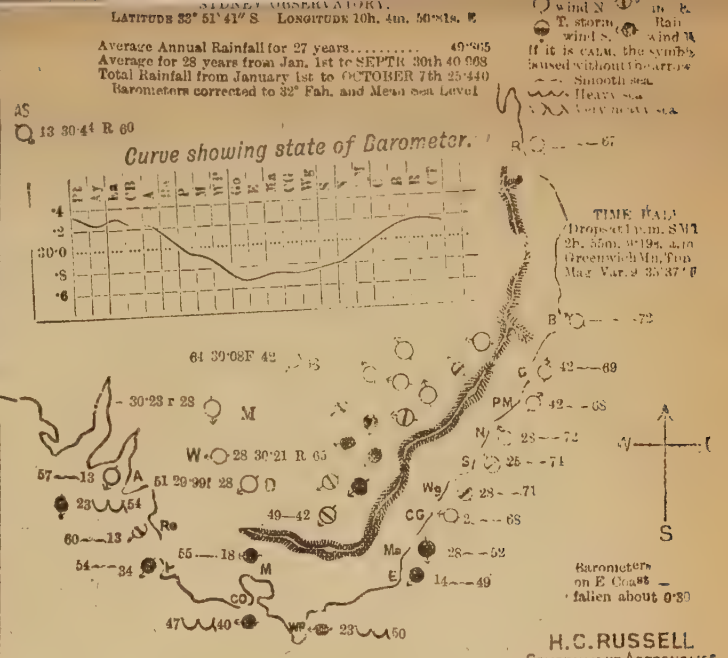
Sydney Observatory, October 6, 1886.

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years..... 49·365
Average for 28 years from Jan. 1st to SEPTR 30th 40·903
Total Rainfall from January 1st to OCTOBER 7th 25·440
Barometers corrected to 32° Fah. and Mean Sea Level

Albury	g	72 47	0·13
Armidale	b	68 51	0
Balranald	b	86 38	0·16
Bathurst	r	71 50	0·06
Bend'm'r	g	68 51	0
Bodalla ..	r	83 55	0·05
Bourke ..	b	85 54	0
Br'w rrina	b	89 41	0
Bundarra	b	72 58	0
C'md'n H	b	74 59	0
C.St.Geo	b	71 60	0
Carcoar ..	r	62 48	0·17
Casino ..	b	82 56	0
Cassilis ..	b	68 52	0
Clarence	b	79 60	0
C'nd'b'lin	g	77 36	0·03
Cooma ..	r	74 47	0·21
Coonab'n	g	74 55	0
Cowra ..	r	78 47	0·16
Deniliq'n	b	78 40	0·21
Dubbo ..	c	75 51	0
Eden	r	67 48	0·14
Euston ..	b	88 41	0
Forbes ..	r	— 49	0·10
Gl'n Inn's	c	69 46	0
Goulburn	r	72 43	0·18
Grafton ..	b	82 56	0
Gulgong	u	72 51	0
Gunned'h	b	70 43	0
Hay	b	76 41	0·11
Inverell ..	c	69 51	0
Kiandra	s	59 34	0·35
Lismore	b	81 55	0
Maitland	b	71 58	0
Marsdens	r	74 55	0·17
Menindie	b	71 53	0
Molong ..	o	55 49	0·06
M'r'ng'r'll	r	77 52	0·18
Moree ..	b	75 55	0
Moruya ..	r	81 53	0·01
Moss Vale	r	70 56	0
Mt. Hope	g	75 —	0
M.Vict'ria	r	68 44	0·54
Mudgee	g	75 39	0
M'rr'm'bh	r	71 48	0·17
M'rr'r'ndi	b	67 57	0
Mus'br'k	b	70 58	0
Narrabri	b	76 59	0
Newcastle	b	75 55	0
Orange ..	r	62 44	0·15
Picton ..	u	77 39	0
P. M'q'rie	h	71 57	0
P. St'ph'n	b	75 52	0
Q'nbeyan	r	65 50	0·17
Quirindi	h	81 52	0
Singleton	b	75 60	0
SYDNEY ..	c	76 61	0
Tamw'rth	b	73 48	0
Taralga ..	r	90 45	0·24
Taree	b	80 56	0
T'nt'rfield	b	73 64	0
Wagga ..	b	76 47	0·27
Walcha ..	u	66 45	0
Walgett ..	b	80 60	0
Warrah ..	b	73 —	0
W'ntw'rth	b	85 46	0·03
Wll'ng'ng	g	76 63	0
Young ..	r	72 47	0·18



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine and clear, with E. to S.E. winds along the west coast, and W. to N.W. winds on south coast; rough sea off Cossack; no rain fallen. Extremes of barometers and temperature: Geraldton, 30·26; Cossack, 29·91; Ashburton, 74°; and Esperance Bay, 52°.

South Australia.—Generally fine, but more or less clouded south of Port Augusta; showery on parts of the coast, and in S.E. light rain fallen on and near the coast; heaviest at Laura and Crafers, where 0·63 inch fell; five stations report above 0·40 inch, and many others lesser quantities. Extremes of barometers and temperature: On the coast—Eucla, 30·84; Robe, 30·09 and 60°; M'Donnell Bay, 54°. In Northern Territory—Daly Waters, 30·07 and 83°; Port Darwin, 29·96 and 88°.

Victoria.—Showery on the coast; overcast and threatening inland, with strong westerly winds, fallen barometers, and rough sea. Squally and misty on the coast. Rain fallen generally. Lakes Entrance, 0·72; Wilson's Promontory, 0·54; Omeo, 0·44; Cape Otway and Echuca, 0·33, and the other stations lesser quantities. Extremes of barometers and temperature: Ballarat, 30·01 and 50°; Wilson's Promontory, 29·77; and Cape Schanck, 57°.

Tasmania.—Generally showery and overcast, with fresh westerly winds, and moderate sea. Rainfall: Southport, 0·35, and rough sea; Circular Head, 0·11; and Hobart, 0·08. Extremes of barometers and temperature: Circular Heads, 29·75; Hobart, 29·59; Southport, 45°; and Falmouth, 57°.

New Zealand.—Generally fine and clear, with N. to W. winds. Barometers: Russell, 30·3; Wellington, 30·2; and Bluff, 29·9.

New South Wales.—In N.E. and S.W. parts fine and clear; south of Mudgee raining more or less heavily at 20 stations scattered on and along both slopes of the range, to the sea in the east, and Marsden and Morangarell in west. During the night rain has fallen in the same districts, having been heaviest at Mount Victoria, where over half an inch fell. Winds are generally fresh from N. to W.; barometers have fallen along the coast, but risen in west parts; and the sea is moderately smooth. Snowing at Kiandra. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·23; Eden and Cape St. George, 29·73; Sydney, 74°; and Kiandra, 35°. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit and mean sea level, at 9 a.m.: 29·803. Extra stations: B[illegible]

Lake Cudgellico, maximum 56°, minimum 45°, cloudy and cold. For further particulars see map.

Queensland.—Generally fine, with light variable winds and calms, and moderate sea. Squally and rough sea at Cooktown. Extremes of barometers and temperature: Brisbane, 30·19; Cape Moreton, 67°; Townsville, 29·82; and Cooktown, 83°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 34, fine, but cloudy, smooth sea, temperature 55°; Cape Otway, S.W., showery, rough sea, temperature 51°; Melbourne, S., 18, fine and squally, temperature 55°; Cape Schanck, S., 18, fine, cloudy and misty, rough sea, temperature 57°; Lakes Entrance, W.S.W., 48, showery, squally; temperature 57°.

New South Wales.—Menindie, S.W., 14, fine, temperature 64°; Wentworth, W., 14, fine; temperature 60°; Deniliquin, W.S.W., dull, temperature 66°; Eden, S.W., 28, fine, smooth sea, temperature 63°; Moruya, E.S.E., 28, fine, smooth sea, temperature 64°; Cape St. George, W., 42, dull, smooth sea, temperature 62°; Sydney, W.S.W., 36, fine and squally, smooth sea, temperature 64°; Newcastle, S.W., 28, cloudy, smooth sea, temperature 68°; Port Macquarie, N.N.E., 42, cloudy and moderate, temperature 75°; Clarence River, N.E., 14, fine, smooth sea, temperature 77°; Walgett, S., fine, temperature 68°; Dubbo, S., 28, fine, temperature 62°; Goulburn, N.W., 14, fine, temperature 57°.

STATE OF RIVERS.

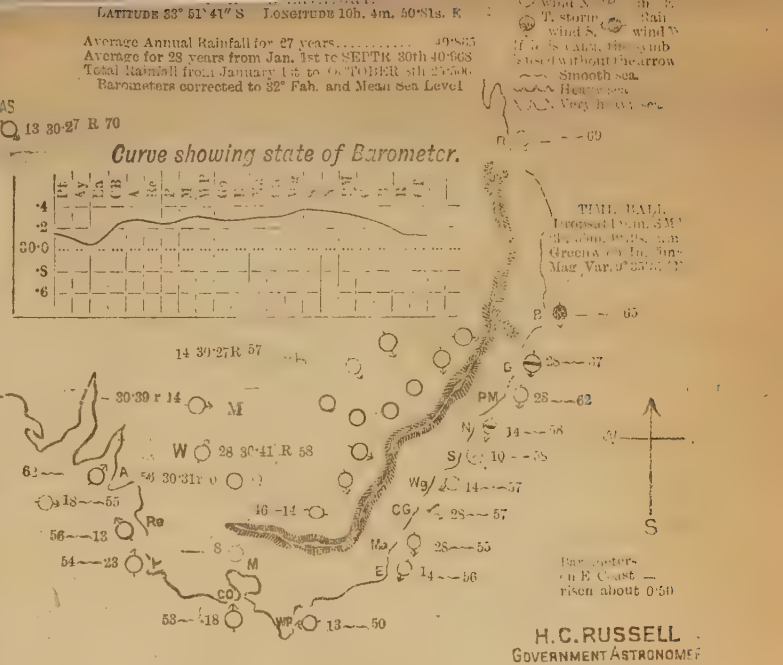
Macintyre: At Mungindi, 13 feet above summer level. Barwon: At Mogil Mogil, 11 feet; Walgett, 12 feet 4 inches. Namoi: 2 feet. Culgoa: At Goodooga, 3 feet 8 inches. Darling: At Brewarrina, 10 feet; at Bourke, 28 feet 6 inches; at Louth, 33 feet 2 inches; at Tilpa, 37 feet 8 inches; at Wilcannia, 34 feet 6 inches; at Menindie, 26 feet 8 inches; at Pooncarie, 22 feet 5 inches; at Wentworth, 15 feet 5 inches. Murrumbidgee: At Gundagai, 7 feet 6 inches; at Wagga, 9 feet 9 inches; at Hay, 9 feet 6 inches; at Balranald, 12 feet 10 inches. Murray: At Albury, 10 feet 6 inches; at Euston, 13 feet 4 inches.

ASTRONOMICAL MEMORANDA FOR OCTOBER 8.

Sun rises at 5.29, sets at 6.7; Moon, 2.0 p.m., sets at 2.30 a.m.; Mercury, 5.51 a.m., 6.35 p.m.; Venus, 4.59 a.m., 4.58 p.m.; Mars, 7.50 a.m., 9.55 p.m.; Jupiter, 5.35 a.m., 6.6 p.m.; Saturn, 1.34 a.m., 11.26 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 8: 4.7 a.m., 4.40 p.m.

Armidale	n	69	37	0·27
Balranald	b	84	42	0
Bathurst	n	55	32	0·05
Bend'm'r	b	65	36	0·16
Bodalla ..	b	74	37	0·25
Bourke ..	b	74	47	0
Br'w rrina	b	75	36	0
Bundarra	b	73	49	0
C'nd'n H	—	—	—	—
C. St. Geo	c	72	60	0
Carcoar ..	n	55	35	0·15
Casino ..	c	83	59	0
Cassilis ..	n	68	39	0
Clarence	c	80	62	0·02
C'nd'b'lin	b	80	36	0
Cooma ..	b	61	47	0·02
Coonab'n	b	70	35	0
Cowra ..	b	70	43	0·10
Deniliq'n	b	65	38	0
Dubbo ..	b	63	32	0
Eden	b	61	46	0·05
Euston ..	b	69	34	0
Forbes ..	b	—	46	0
Gl'n Inn's	b	67	33	0·02
Goulburn	b	55	31	0·05
Grafton ..	c	86	56	0
Gulgong	b	65	39	0
Gunned'h	b	76	41	0
Hay	b	76	40	0
Inverell ..	n	73	43	0·31
Kiandra	b	54	23	0·45
Lismore	b	83	64	0
Maitland	b	81	44	0
Marsdens	b	65	45	0·01
Menindie	h	67	52	0
Molong ..	b	59	34	0·04
M'r'ng'r'll	b	68	40	0
Moree ..	b	80	42	0
Moruya ..	b	62	44	0·24
Moss Vale	u	59	40	0·18
Mt. Hope	b	63	—	0
M. Vict'ria	b	63	36	0·08
Mudgee	b	65	28	0·02
M'rr'm'bh	b	61	40	0·08
M'rr'n'di	b	68	43	0
Mus'lbr'k	b	80	35	0
Narrabri	b	74	46	0
Newcastle	g	79	49	0·01
Orange ..	b	52	33	0·08
Picton ..	g	70	38	0·07
P. M'q'rie	b	81	44	0
P. St'ph'n	c	81	46	0·22
Q'nbeyan	b	69	47	0
Quirindi	b	75	41	0
Singleton	b	76	50	0·06
Sydney ..	g	76	51	0·06
Tamw'rth	b	72	34	0
Taralga ..	b	71	30	0·20
Taree	b	85	50	0
T'nt'rfield	b	74	58	0
Wagga ..	b	65	44	0
Walcha ..	b	65	29	0·09
Walgett ..	b	74	45	0
Warrah ..	b	69	—	0
W'ntw'rth	b	70	44	0
W'll'ng'ng	b	73	50	0·10
Young ..	b	67	35	0·12



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Mu, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In north fine, with E. to S.E. winds, and moderate sea; squally, with rough sea, at Carnarvon. In south cloudy, with N.W. to S.W. winds and moderate sea; strong south wind in squalls and rough sea at Albany. Extremes of barometers and temperature: Geraldton, 30·28; Esperance Bay, 29·98 and 56°.; Carnarvon, 76°.

South Australia.—Generally fine, with scattered clouds, light N. to N.E. winds, risen barometers, and moderate sea; overcast and gloomy at places in north and west parts; and a few points rain fallen in S.E. Extremes of barometers and temperature: Adelaide, 30·28; Eucla, 30·10 and 63°; M'Donnell Bay, 53°. In Northern Territory—Daly Waters, 30·07 and 85°; Port Darwin, 29·92 and 87°.

Victoria.—Generally fine, with light N. to W. winds, risen barometers, and moderate sea; frosty inland. Rainfall: Cape Schanck, 0·09; Cape Otway, 0·08; Horsham, 0·07; Melbourne, 0·04; and Ballarat and Hamilton, 0·03. Extremes of barometers and temperature: Melbourne, 30·33; Hamilton, 30·24 and 48°; Horsham, 58°.

Tasmania.—Generally fine, with light N. to E. winds and calms, risen barometers, and moderate sea; dead calm sea at Falmouth. Rainfall: Southport, 0·14; Hobart, 0·13. Extremes of barometers and temperatures: Falmouth, 30·27 and 48°; Southport, 30·15 and 54°.

New Zealand.—In extreme north and south parts gloomy, with north winds; at Wellington strong N.W. wind and fine weather. Barometers: Russell, 30·3; Wellington, 30·0; and Bluff, 29·5.

New South Wales.—Generally fine, clear, and cold, with light E. to S. winds, high and rising barometers, and smooth to moderate sea. Cloudy and dull along the coast, and frosty on the range. During the last 24 hours light rain has fallen in the eastern division of the colony; heaviest on and near the range, where falls of from ¼ to nearly ½ inch have been recorded. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·41; Dubbo, 30·23; Lismore, 67°; and Cooma, 38°. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit and mean sea level at 9 a.m.: 30·360. Extra station: Lake Cudgellico, maximum 65°, minimum 38°, fine and clear. For further particulars see map.

Queensland.—Fine in north parts, cloudy and raining in south, with S.E. to S. winds, risen barometers, and moderate sea. Strong S.E. wind in squalls, and rough sea at Cooktown; 0·10 inch rain fallen at Brisbane. Extremes of barometers and temperature: Brisbane, 30·22 and 65°; Townsville, 29·87; and Cooktown, 83°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 18, fine, but cloudy, smooth sea temperature 63°; Cape Otway, S.E., 13, fine, but cloudy, rough sea, temperature 58°; Melbourne, N., 13, fine, but cloudy, temperature 63°; Cape Schanck, W., 8, fine, smooth sea, temperature 56°; Wilson's Promontory, S.E., 8, fine, but cloudy, smooth sea, tempefature 56°; Lakes Entrance, E., 18, temperature 61°.

New South Wales.—Menindie, E., 14, fine, temperature 65°; Wentworth, N.W., fine and clear, temperature 63°; Deniliquin, calm, fine, but cloudy, temperature 67°; Eden, E., 28, fine, smooth sea, temperature 57°; Moruya, N.E., 28, fine, smooth sea, temperature 59°; Cape St. George, E., 14, fine, smooth sea, temperature 61°; Sydney, E., 10, fine, smooth sea, temperature 61; Newcastle, S.E., 14, showery, moderate sea, temperature 59°; Port Macquarie, S.E., 28, fine, smooth sea, temperature 70°; Walgett, S.E., fine, temperature 70°; Dubbo, S.W., 14, fine, temperature 62°; Goulburn, calm, fine, temperature 53°.

STATE OF RIVERS.

Macintyre: At Mungindi, 13 feet 6 inches above summer level. Barwon: At Mogil Mogil, 12 feet 4 inches; Walgett, 10 feet 6 inches. Namoi: low. Culgoa: At Goodooga, low. Darling: At Brewarrina, 8 feet; at Bourke, 27 feet; at Louth, 32 feet 5 inches; at Tilba, 37 feet 6 inches; at Wilcannia, 34 feet 1 inch; at Menindie, 26 feet 9 inches; at Pooncarie, 22 feet 4 inches; at Wentworth, 15 feet 6 inches. Murrumbidgee: At Gundagai, 7 feet; Wagga, 8 feet 4 inches; at Hay, 8 feet; at Balranald, 12 feet 10 inches. Murray: At Albury, 9 feet 6 inches; at Euston, 13 feet 9 inches.

ASTRONOMICAL MEMORANDA FOR OCTOBER 9.

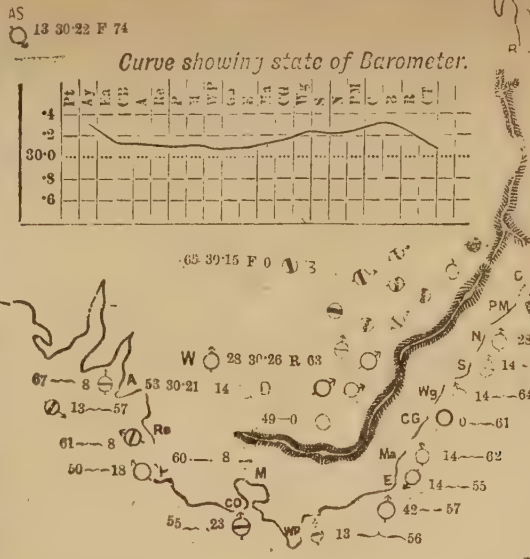
Sun rises at 5.28, sets at 6.7; Moon, 2.54 p.m., sets at 3.8 a.m.; Mercury, 5.51 a.m., 6.39 p.m.; Venus, 4.59 a.m., 5 p.m.; Mars, 7.49 a.m., 9.54 p.m.; Jupiter, 5.32 a.m., 6.3 p.m.; Saturn, 1.20 a.m., 11.22 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 9: 5.12 a.m., 5.41 p.m.

Armidale n		69	37	0·27
Balranald	b	83	31	0
Bathurst	g	67	38	0
Bend'm'r	b	68	46	0
Bodalla ..	b	67	40	0
Bourke ..	c	79	52	0
Br'w rrina	c	84	37	0
Bundarra	b	73	52	0
C'md'n H	g	88	56	0·17
C. St. Geo	b	65	53	0
Carcoar ..	g	57	41	0
Casino ..	b	71	52	0
Cassilis ..	o	63	50	0
Clarence	g	80	61	0
C'nd'b'lin	b	78	36	0
Cooma ..	n	67	32	0
Coonab'n	g	70	40	0
Cowra ..	b	75	45	0
Deniliq'n	r	76	46	0
Dubbo ..	g	75	48	0
Eden	b	63	47	0
Euston ..	b	83	48	0
Forbes ..	b	—	46	0
Gl'n Inn's	o	68	48	0
Goulburn	b	68	35	0
Grafton ..	u	82	58	0
Gulgong ..	u	66	42	0
Gunned'h	b	75	41	0
Hay	b	76	41	0
Inverell ..	b	71	57	0
Kiandra ..	n	50	26	0
Lismore ..	c	68	56	0·13
Maitland ..	c	66	50	0
Marsdens ..	b	71	50	0
Menindie ..	b	68	56	0
Molong ..	u	56	39	0
M'r'ng'r'll	b	73	46	0
Moree ..	g	78	53	0
Moruya ..	b	63	45	0
Moss Vale	b	60	45	0
Mt. Hope	b	69	—	0
M. Vict'ria	g	61	44	0
Mudgee	c	73	41	0
M'rr'm'bh	b	72	44	0
M'rr'r'ndi	c	66	47	0
Mus'br'k	g	75	50	0
Narrabri	g	75	52	0
Newcastle	b	73	55	0·02
Orange ..	c	59	40	0
Picton ..	c	67	46	0
P. M'q'rie	r	68	54	1·33
P. St'ph'n	c	65	50	0·43
Q'nbeyan	b	60	43	0
Quirindi	b	84	47	0
Singleton	b	65	53	0
Sydney ..	g	64	51	0
Tamw'rth	—	—	—	—
Taralga ..	b	71	40	0
Taree	c	72	57	0·01
T'nt'rfield	r	71	61	0
Wagga ..	b	71	46	0
Walcha ..	g	60	41	0
Walgett ..	g	74	50	0
Warrah ..	—	—	—	—
W'ntw'rth	b	76	52	0
W'll'ng'ng	b	67	51	0
Young ..	h	78	43	0

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·4s. E.

Average Annual Rainfall for 27 years..... 49·685
Average for 28 years from Jan. 1st to SEPTR 30th 40·968
Total Rainfall from January 1st to OCTOBER 9th 25·501
Barometers corrected to 32° Fah. and Mean Sea Level



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; i, fog; g, gloomy: h, hazy; m, misty: n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, astly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, cloudy and dull, with fresh south wind, risen barometer, and moderate sea. Barometer, 30·34; temperature, 53°; rainfall, 0·24 inch.

South Australia.—Generally fine, with light scattered clouds, light easterly winds and calms, fallen barometers, and moderate sea. Rainfall: 0·01 inch at Adelaide. Extremes of barometers and temperature: On the coast, Eucla, 30·20; M'Donnell Bay, 30·11; Adelaide, 67°; and Cape Borda, 57. In Northern Territory—Daly Waters, 30·06; Port Darwin, 29·96; and both 86°.

Victoria.—Generally fine, but cloudy, with light N. to N.W. winds, fallen barometers, and smooth sea; no rain fallen. Extremes of barometers and temperature: Lakes Entrance, 30·19 and 50°; Hamilton, 30·11; and Horsham, 60°.

Tasmania.—Generally fine, but cloudy, with light northerly winds, fallen barometers, and moderate sea; showery at Low Heads. Extremes of barometers and temperature: Low Heads, 30·12 and 53°; Southport 39·94 and 63°.

New Zealand.—Showery in extreme north and south parts; strong N.W. wind in squalls during the night, and 0·57 inch rain fallen at Wellington. Barometers: Russell, 29·9; Wellington, 29·8; and Bluff, 30·1.

New South Wales.—In N.E. parts cloudy and threatening rain, with showers in places on the coast and near the range, light N.E. to N. winds, slowly falling barometers, and smooth sea. In W. and S. fine, clear, and cold. Light rain has fallen on the coast between Macleay and Hunter Rivers. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·31 and 66°; Gabo, 30·13; and Bathurst, 47°. Reading of standard barometer at Sydney, corrected to 32° Fahrenheit and mean sea level at 9 a.m.: 30·254. Extra station: Lake Cudgellico, maximum 72°, minimum 45°, and fine. For further particulars see map.

Queensland.—Generally fine and clear, with falling barometers and moderate sea. Extremes of barometers and temperature: Brisbane, 30·29; Townsville, 29·88; Cooktown, 86°; and Cape Moreton, 65°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 24, fine, sea smooth, temperature 62°; Cape Otway, W., 24, cloudy, sea smooth, temperature 63°; Wilson's Promontory, N.W., 24, squally, sea moderate, temperature 62°.

New South Wales.—Wentworth, N.W., 14, cloudy, temperature, 66°; Deniliquin, calm, cloudy, temperature 70°; Eden, N.E., 14a fine, sea smooth, temperature 64°; Moruya, N.E., 28, cloudy, sea smooth, temperature 64°; Cape St. George, N., 40, like storm sea smooth, temperature 63°; Sydney, N.E., 10, cloudy, sea smooth, temperature 64°; Newcastle, N.E., 10, cloudy, sea smooth, temperature 67°; Port Macquarie, N.N.E., 40, fine, sea smooth, temperature 70°; Clarence River, N.E., 20, fine, sea smooth, temperature 70°; Dubbo, N., 14, cloudy, temperature 68°; Goulburn, N.W., 10, cloudy, temperature 60°.

STATE OF RIVERS.

Macintyre: At Mungindi, 14 feet above summer level. Barwon: At Mogil Mogil, 13 feet; Walgett, 9 feet. Namoi: Low. Culgoa: At Goodooga, 4 feet 6 inches. Darling: At Brewarrina, 5 feet; at Bourke, 27 feet; at Louth, 32 feet 2 inches; at Tilpa, 37 feet 5 inches; at Wilcannia, 34 feet 6 inches; at Menindie, 26 feet 9 inches; at Pooncarie, 22 feet 4 inches; at Wentworth, 15 feet 7 inches. Murrumbidgee: At Gundagai, 7 feet; at Wagga, 8 feet 3 inches; at Hay, 7 feet 6 inches; at Balranald, 13 feet 3 inches. Murray: At Albury, 8 feet 4 inches; at Euston, 13 feet 11 inches.

ASTRONOMICAL MEMORANDA FOR OCTOBER 11.

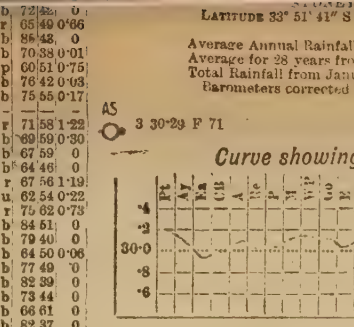
Sun rises at 5.26, sets at 6.9; Moon, 4.40 p.m., sets at 4.15 a.m.; Mercury, 5.51 a.m., 6.47 p.m.; Venus, 4.58 a.m., 5.4 p.m.; Mars, 7.46 a.m., 9.53 p.m.; Jupiter, 5.25 a.m., 5.58 p.m.; Saturn, 1.13 a.m., 11.15 a.m. Full Moon, 13th; New Moon, 2[illegible]

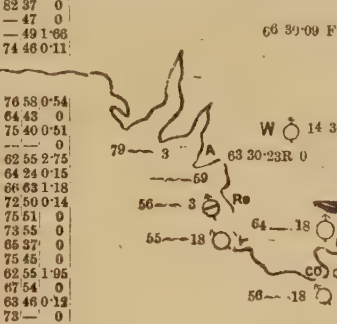
High water at Fort Denison, October 11: 6.55 a.m., 7.14 [illegible]

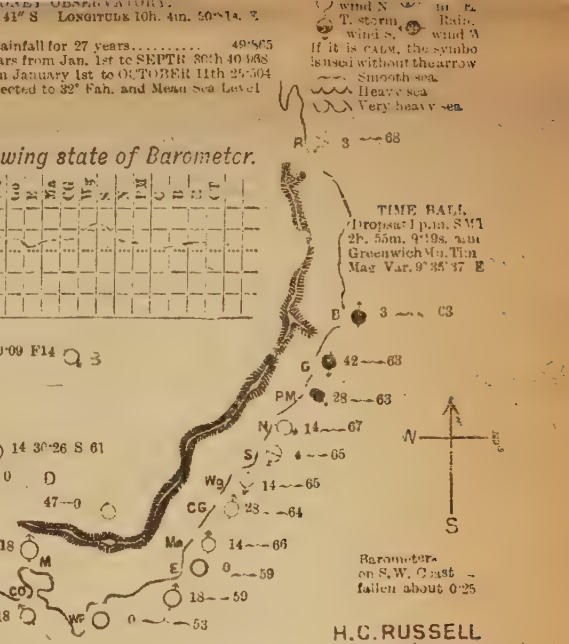
Albury	b	72	42	0
Armidale	r	65	49	0·66
Balranald	b	86	43	0
Bathurst	b	70	38	0·01
Bend'm'r	p	60	51	0·75
Bodalla ..	b	76	42	0·03
Bourke ..	b	75	55	0·17
Br'w'rrina	–	—	—	–
Bundarra	r	71	58	1·22
C'mdn H	b	69	59	0·30
C. St. Geo	b	67	59	0
Carcoar ..	b	64	46	0
Casino ..	r	67	56	1·19
Cassilis ..	u	62	54	0·22
Clarence	r	75	62	0·73
C'nd'b'lin	b	84	51	0
Cooma ..	b	79	40	0
Coonab'n	b	64	50	0·06
Cowra ..	b	77	49	0
Deniliq'n	b	82	39	0
Dubbo ..	b	73	44	0
Eden	b	66	61	0
Euston ..	b	82	37	0
Forbes ..	b	—	47	0
Gl'n Inn's	r	—	49	1·66
Goulburn	b	74	46	0·11
Grafton ..	r	76	58	0·54
Gulgong	g	64	43	0
Gunned'h	b	75	40	0·51
Hay	b	—	—	0
Inverell ..	o	62	55	2·75
Kiandra	n	64	24	0·15
Lismore	r	66	63	1·18
Maitland	b	72	50	0·14
Marsdens	b	75	51	0
Menindie	b	73	55	0
Molong ..	b	65	37	0
M'r'ng'r'll	b	75	45	0
Moree ..	b	62	55	1·95
Moruya ..	b	67	54	0
Moss Vale	u	63	46	0·12
Mt. Hope	b	73	—	0
M. Vict'ria	u	63	43	0·25
Mudgee	c	67	43	0
M'rr'm'bh	b	72	45	0
M'rr'mdi	c	63	54	0·54
Mus'br'k	b	73	49	0·08
Narrabri	r	73	52	0·56
Newcastle	b	72	56	0
Orange ..	b	64	40	0
Picton ..	c	69	48	0
P. M'q'rie	p	72	50	0·03
P. St'ph'n	c	72	48	0·27
Q'nbeyan	b	65	46	0·39
Quirindi	g	64	51	0
Singleton	b	72	55	0·41
Sydney ..	c	63	55	0·09
Tamw'rth	g	60	55	0
Taralga ..	b	73	38	0·36
Taree	o	71	58	0
T'nt'rfield	r	69	44	0·10
Wagga ..	b	78	41	1·54
Walcha ..	r	65	44	0
Walgett ..	c	63	57	0·54
Warrah ..	g	64	—	0·21
W'ntw'rth	b	73	48	0
W'll'ng'ng	b	69	54	0
Young ..	b	86	41	0

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·1s. E.

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to SEPTR 30th 40·068
Total Rainfall from January 1st to OCTOBER 11th 25·504
Barometers corrected to 32° Fah. and Mean Sea Level







H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy: h, hazy; m, misty: n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden: Ma, Moruya, C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Wind generally S.W. to S.E. and light, cloudy weather generally, threatening at Esperance Bay, strong wind in squalls at Carnarvon, and very smooth sea at Cossack.

South Australia.—Cloudy weather at Port Darwin, Daly Waters, Adelaide, Robe, and M'Donnell Bay; wind generally from N. to N.N.W., rather strong at Eucla; the clouds appear to be on and near coast; rainfall at Port Darwin, 0·02, and at Daly Waters, ·03.

Victoria.—Fine generally; up to 9 a.m. 0·22 rain fell at Melbourne, 0·02 at Portland, 0·21 at Cape Shanck, and 0·02 at Ballarat; wind generally N. and N.W., and fresh slight sea on the coast.

Tasmania.—Cloudy at all the stations, with wind from N., except at Low Head, at which place it is W.N.W. No rain reported anywhere. Sea moderate at Southport, and dead calm at Falmouth.

New Zealand.—At Russell, the barometer is 30·2, calm and gloomy; Wellington, 29·9, S.W., showery: and at the Bluff, 30·0, with S.W. wind and fine.

New South Wales.—Cloudy and raining to the N., and generally fine S. and W., light wind chiefly between S. and E. throughout the colony, frosty at Kiandra. It was raining this morning at the undermentioned stations:—Steadily at Armidale; thick rain at Casino and Clarence Heads; raining at Glen Innes, Grafton, Lismore, Narrabri, Lawrence, Tenterfield, Walcha, and Bundarra; showery at Bendemeer and Port Macquarie. Additional stations: Lake Cudgellico, calm, fine, max. 73°, min. 44°; Gabo Island, N.N.E., fresh, fine, misty, sea slight; smooth and moderate sea along the coast.

Queensland.—Cloudy at all stations except Cooktown. Showery at Brisbane this morning. Rainfall at 9 a.m.: Brisbane, 1·17 points; Cape Moreton, 1·05; Rockhampton, 0·6; Townsville, 0·03; and Cooktown, 1·02. Moderate sea on coast, at Cape Moreton and Townsville.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 28, fine, cloudy, sea smooth, temperature 69°; Cape Otway, N.W., 23, cloudy, fine, sea smooth; Melbourne, N.W., 13, fine, temperature 73°; Cape Schanck, W., 8, fine, cloudy, sea slight, temperature 58°; Wilson's Promontory, N.W., 13, fine, cloudy, sea smooth, temperature 66°; Lake's Entrance, S.E., 13, fine, temperature 68°.

New South Wales.—Menindie, calm, fine, clear, temperature 69°; Wentworth, calm, fine, hot, temperature 69°; Deniliquin, calm, fine, clear, temperature 73°; Eden, N.E., fresh, fine, sea light, temperature 65°; Moruya, N.E., 42, strong, sea moderate, temperature 64°; Cape St. George, N., fresh, fine, sea smooth, temperature 63°; Sydney, N.E., fresh, fine, sea smooth, temperature 67°; Newcastle, N.E., light, fine, no sea, temperature 68°; Port Macquarie, E., fresh, cloudy, sea smooth, temperature 72°; Clarence River, S.E., 20, thick, sea moderate, temperature 65°; Walgett, S.E., 10, fine, temperature 72°; Dubbo, calm, fine, temperature 67°; Goulburn, calm, fine, temperature 62°.

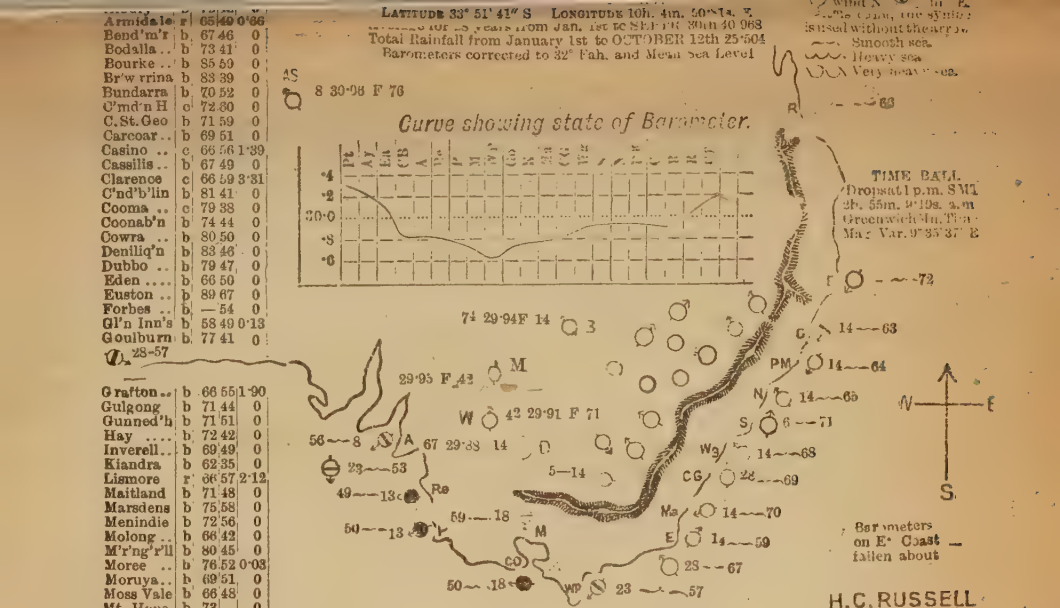
STATE OF RIVERS.

Macintyre: At Mungindi, 14 feet, stationary. Barwon: At Mogil Mogil, 14 feet, rising; at Walgett, 11 feet, rising. Namoi: At Walgett, low. Culgoa: At Goodooga, 5 feet 1 inch, rising. Darling: At Brewarrina, 2 feet, falling; at Bourke, 21 feet; at Louth, 31 feet, falling; at Tilpa, 37 feet 1 inch, falling; at Wilcannia, 34 feet 7 inches, rising slowly; at Menindie, 27 feet, rising; at Pooncarie, 22 feet 8 inches; at Wentworth, 15 feet 8 inches. Murrumbidgee: At Gundagai, 2 feet, stationary; at Wagga, 7 feet 9 inches; at Balranald, 13 feet 11 inches. Murray: At Albury, 7 feet 10 inches; at Euston, 14 feet.

ASTRONOMICAL MEMORANDA FOR OCTOBER 12.

Sun rises at 5.24, sets at 6.9; Moon, 5.34 p.m., sets at 4.48 a.m.; Mercury, 5.51 a.m., 6.51 p.m.; Venus, 4.57 a.m., 5.6 p.m.; Mars, 7.45 a.m., 9.53 p.m.; Jupiter, 5.21 a.m., 5.55 p.m.; Saturn, 1.9 a.m., 11.11 a.m. Full Moon, 13th; New Moon, 27th. High water at Fort Denison, October 12: 7.35 a.m., 7.54 p.m.

Armidale	r	65 49	0·66
Bend'm'r	b	67 46	0
Bodalla ..	b	73 41	0
Bourke ..	b	85 59	0
Br'w rrina	b	83 39	0
Bundarra	b	70 52	0
C'md'n H	c	72 50	0
C. St. Geo	b	71 59	0
Carcoar ..	b	69 51	0
Casino ..	c	66 56	1·39
Cassilis ..	b	67 49	0
Clarence	c	66 59	3·31
C'nd'b'lin	b	81 41	0
Cooma ..	c	79 38	0
Coonab'n	b	74 44	0
Cowra ..	b	80 50	0
Deniliq'n	b	83 46	0
Dubbo ..	b	79 47	0
Eden	b	66 50	0
Euston ..	b	89 67	0
Forbes ..	b	— 54	0
Gl'n Inn's	b	58 49	0·13
Goulburn	b	77 41	0
Grafton ..	b	66 55	1·90
Gulgong	b	71 44	0
Gunned'h	b	71 51	0
Hay	b	72 42	0
Inverell ..	b	69 49	0
Kiandra ..	b	62 35	0
Lismore ..	r	66 57	2·12
Maitland	b	71 48	0
Marsdens	b	75 58	0
Menindie	b	72 56	0
Molong ..	b	66 42	0
M'r'ng'r'll	b	80 45	0
Moree ..	b	76 52	0·03
Moruya ..	b	69 51	0
Moss Vale	b	66 48	0
Mt. Hope	b	73 —	0
M. Vict'ria	b	66 44	0
Mudgee	b	80 39	0
M'rr'm'bh	b	78 46	0
M'rr'mdi	b	66 50	0
Mus'br'k	b	72 48	0
Narrabri	b	74 48	0
Newcastle	b	70 55	0
Orange ..	c	66 41	0
Picton ..	b	73 43	0
P. M'q'rie	b	71 56	0·31
P. St'ph'n	b	71 46	0
Q'nbeyan	b	66 46	0
Quirindi	b	80 47	0
Singleton	b	60 53	0
Sydney ..	h	72 54	0
Tamw'rth	b	64 46	0
Taralga ..	b	76 42	0
Taree	b	74 55	0
T'nt'rfield	b	75 56	0·78
Wagga ..	b	78 43	0
Walcha ..	c	55 40	0·01
Walgett ..	b	74 55	0
Warrah ..	b	— —	0
W'ntw'rth	b	84 58	0
W'll'ng'ng	b	75 59	0
Young ..	h	82 43	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Mu, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along westwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine and clear along the west coast, cloudy in south parts, with light S.E. to S. winds, risen barometers, and smooth sea. Two points rain fallen at Esperance Bay. Extremes of barometers and temperature: Perth, 30·29 and 50°; Cossack, 29·87 and 78°.

South Australia.—Generally cloudy, with light S. to S.E. winds, rising barometers, and smooth sea; light rain in showers at places on the coast. Rainfall: M'Donnell Bay, 0·24; Cape Borda, 0·11; Port Lincoln, 0·05; and Streaky Bay, 0·01. Extremes of barometers and temperature: Eucla, 30·05; M'Donnell Bay, 29·79 and 48°; Port Augusta, 68°. In Northern Territory: Daly Waters, 30·2 and 67°; Port Darwin, 29·85 and 86°.

Victoria.—Showers of light rain on the coast, overcast and threatening inland, with fresh W. and S.W. winds, fallen barometers, and moderate sea. Rainfall: Portland, 0·30, Cape Otway, 0·06, and Hamilton, 0·09. Extremes of barometers and temperature: Ballarat, 29·79; Wilson's Promontory, 29·61; Hamilton, 47°; Horsham and Lakes Entrance, 61°.

Tasmania.—Generally showery, with fresh S.W. to W. winds, fallen barometers, and moderate sea. Misty on the coast, and rough sea off Circular Head. Rainfall: On the east coast, from 0·04 to 0·12 inch. Extremes of barometers and temperature: Low Heads, 29·63; Hobart, 29·49; Southport, 48°; and Falmouth, 62°.

New Zealand.—Generally fine, with light variable winds and calms. Gloomy in extreme north. Barometers: Russell, 30·2; Wellington, 30·1; and Bluff, 30·0.

Queensland.—In south parts fine and clear, with W. to S.W. winds; in north threatening and sultry, with S.E. winds; sea moderate. Rainfall: Brisbane, 0·48; Cape Moreton, 0·27; Cooktown, 0·02. Extremes of barometers and temperature: Cooktown, 30·19; Cape Moreton, 65°; Townsville, 29·76 and 82°.

New South Wales.—Generally fine, clear, and warm, with light N.E. to N.W. winds, falling barometers, and moderately smooth sea. On the coast, in extreme north, cloudy in places, and raining at Lismore. During the last 24 hours heavy rain has fallen on the range and the coast, north of Macleay River; the heaviest fall, viz., 3·31 inch, was registered at Clarence Heads. Extremes of barometers and temperature at 9 a.m.: Clarence, 29·96; Eden, 29·75; Bourke, 74°; and Cooma, 45°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29·949. Extra stations: Lawrence, rainfall 3·30 inch, weather breaking; Lake Cudgellico, max. 82°, min. 46°, fine and clear; Warialda, calm and fine. (For further particulars see map.)

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.S.W., 34, fine, sea smooth, temperature 56°; Cape Otway, W., 34, passing showers, sea moderate, temperature 53°; Melbourne, S.W., 13, showery, temperature 52°; Cape Schanck, W.S.W., 13, showery, sea moderate, temperature 55°.

New South Wales.—Menindie, S.W., 28, fine, temperature 72°; Wentworth, S.W., cloudy, temperature 68°; Deniliquin, N.W., 28, dull and warm, temperature 76°; Moruya, N.W., 14, fine, but sultry, temperature 81°; Cape St. George, N., 42, fine, sea smooth, temperature 68°; Sydney, N.E., fine and warm, sea smooth, temperature 70°; Newcastle, N.E., 14, fine, sea smooth, temperature 65°; Port Macquarie, S.E., 14, fine, sea smooth, temperature 78°; Clarence River, S., 14, fine, sea moderate, temperature 70°; Dubbo, N., 14, fine, temperature 70°; Goulburn, W., 14, fine, temperature 68°.

STATE OF RIVERS.

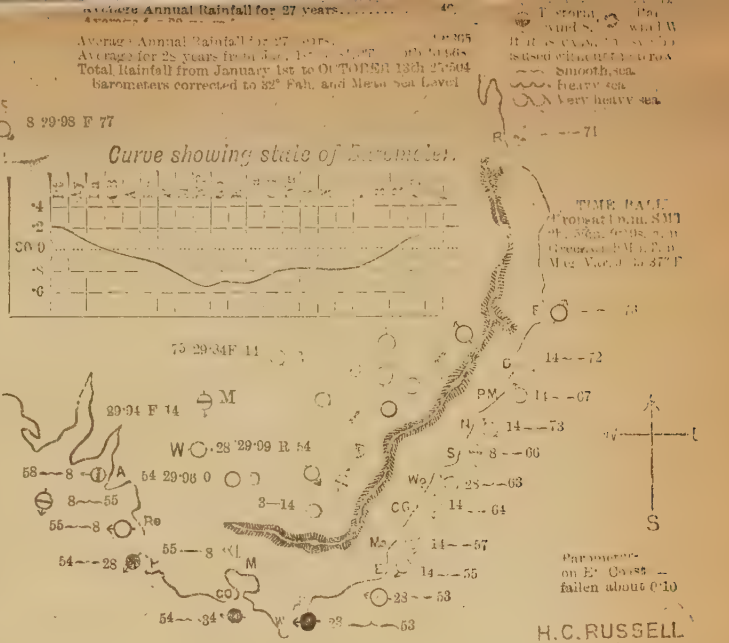
Macintyre: At Mungindi, 14 feet. Barwon: At Mogil Mogil, 17 feet; at Walgett, 12 feet 10 inches. Namoi: At Walgett, low. Culgoa: At Goodooga, 5 feet 7 inches. Darling: At Brewarrina, 1 foot; at Bourke, 18 feet 10 inches; at Louth, 30 feet 9 inches; at Tilpa, 34 feet 11 inches; at Wilcannia, 34 feet 7 inches.; at Menindie, 27 feet 1 inch; at Pooncarie, 22 feet 7 inches; at Wentworth, 15 feet 9 inches. Murrumbidgee: At Gundagai, 6 feet 6 inches; at Wagga, 7 feet 6 inches; at Hay, 18 feet 19 inches; at Balranald, 14 feet. Murray: At Albury, 7 feet 1 inch; at Euston, 14 feet.

ASTRONOMICAL MEMORANDA FOR OCTOBER 13.

Sun rises at 5.23, sets at 6.10; Moon, 6.23 p.m., sets at 5.20 a.m.; Mercury, 5.51 a.m., 6.55 p.m.; Venus, 4.57 a.m., 5.8 p.m.; Mars, 7.44 a.m., 9.52 p.m.; Jupiter, 5.18 a.m., 5.52 p.m.; Saturn, 1.5 a.m., 11.7 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 13: 8.12 a.m., 8.30 p.m.

Albany	b	76 53	0	
Balranald	b	91 45	0	
Bathurst	b	74 50	0	
Bend'n'r	b	73 47	0	
Bodalla ..	g	87 57	0	
Bourke ..	b	87 64	0	
Brw'rrina	b	91 45	0	
Bundarra	b	75 56	0	
C'md'n H	c	78 62	0	
C. St. Geo	b	75 60	0	
Carcoar ..	b	67 46	0	
Casino ..	b	83 52	0	
Cassilis ..	c	72 52	0	
Clarence	b	75 59	0	
C'nd'b'lin	c	86 47	0	
Cooma ..	b	79 43	0·03	
Coonab'n	b	81 34	0	
Cowra ..	b	82 49	0	
Deniliq'n	b	85 37	0	
Dubbo ..	b	82 55	0	
Eden	b	74 57	0	
Euston ..	b	83 42	0	
Forbes ..	g	— 51	0	
Gl'n Inn's	b	75 43	0	
Goulburn	b	77 46	0	
Grafton ..	b	76 57	0	
Gulgong	b	77 55	0	
Gunned'h	b	81 55	0	
Hay	c	82 48	0	
Inverell ..	c	74 50	0	
Kiandra	b	65 40	0·05	
Lismore	b	88 60	0·03	
Maitland	b	73 56	0	
Marsdens	g	80 70	0	
Menindie	g	79 57	0	
Molong ..	b	72 42	0	
M'r'ng'r'll	b	83 58	0	
Moree ..	b	81 55	0	
Moruya ..	g	85 54	0	
Moss Vale	b	72 53	0	
Mt. Hope	b	80 —	0	
M. Vict'ria	b	72 51	0	
Mudgee	b	81 48	0	
M'rr'm'bh	c	70 49	0	
M'rr'ndi	b	71 54	0	
Mus'br'k	b	89 50	0	
Narrabri	h	80 53	0	
Newcastle	b	75 62	0	
Orange ..	c	64 43	0	
Picton ..	c	80 49	0	
P. M'q'rie	b	74 59	0	
P. St'ph'n	g	75 54	0	
Q'nbeyan	c	70 53	0	
Quirindi	b	85 49	0	
Singleton	b	70 69	0	
SYDNEY ..	c	73 61	0	
Tamw'rth	–	— —	–	
Taralga ..	b	74 47	0	
Taree	c	80 58	0	
T'nt'rfield	b	76 44	0	
Wagga ..	b	83 54	0	
Walcha ..	f	67 43	0·01	
Walgett ..	b	84 62	0	
Warrah ..	c	59 —	0	
W'ntw'rth	b	79 46	0	
W'll'ng'ng	b	76 58	0	
Young ..	g	81 48	0	



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Lake Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light S.E. to S.W. winds, steady barometers, and smooth sea. At Esperance Bay overcast and threatening rain, 0·01 inch having fallen. Extremes of barometers and temperature: Perth, 30·21 and 56°; Cossack, 29·79 and 98°.

South Australia.—Generally cloudy and unsettled, with light S.W. winds and calms, steady barometers, and smooth sea. Light showers falling in places on the coast. Rainfall; The Peak, 0·03; Port Lincoln, 0·04; and Robe, 0·01. Extremes of barometers and temperature on the coast: Eucla, 30·05 and 59°; M'Donnell Bay, 29·87 and 53°.

Victoria.—Passing showers of misty rain on the coast, cloudy and unsettled inland, with light westerly winds, steady barometers, and moderate sea. Rainfall: Cape Otway, 0·46; Melbourne, 0·25; Wilson's Promontory, 0·37; Lakes Entrance, 0·40; and other stations, below 0·25 inch. Extremes of barometers and temperature: Horsham, 29·91 and 57°; Wilson's Promontory, 29·69; and Echuca, 53°.

Tasmania.—In north fine but cloudy; in south, overcast and showery, with light N.W. to S.W. winds; risen barometers, and moderate sea. Rainfall: Southport, 0·15; Circular Head, 0·03; and Low Heads and Falmouth, 0·01. Extremes of barometers and temperature: Low Heads, 29·68; Southport, 29·68 and 50°; Falmouth, 53°.

New Zealand.—Generally fine, with strong N.W. winds and falling barometers. Barometers: Russell, 30·2; Wellington, 29·9; and Bluff, 29·6.

New South Wales.—Generally fine and clear, with light N.W. to S.W. winds, almost steady barometers, and smooth sea. Cloudy and gloomy in places on and near the range, principally in south parts. Light rain has fallen at a few stations along the Victorian border and in North Coast districts. Extremes of barometers and temperature at 9 a.m.: Wentworth, 29·99; Forbes, 29·64; Bourke, 75°; and Albury, 53°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29·822. Extra station: Lake Cudgellico, max. 72°, min. 52°, and like rain. (For further particulars see map.)

Queensland.—Generally fine and clear, with light variable winds and calms, fallen barometers, and moderate sea. Extreme of barometers and temperature: Cooktown, 30·16; Townsville, 84° and 29·76; Cape Moreton, 68°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S., 28, overcast, sea smooth, temperature, 56°; Cape Otway, E.N.E., 34, misty and cloudy, sea rough temperature 53°; Melbourne, S., 13, cloudy and gloomy, temperature 53°; Cape Schanck, S., 13, passing showers, sea moderate, temperature 55°; Wilson's Promontory, S.W., 24, cloudy and squally, sea moderate, temperature 53°.; Lakes Entrance, S.W., 23, fine but cloudy, temperature 63°.

New South Wales.—Menindie, S., overcast and dull, temperature 64°; Wentworth, N., 14, showery, temperature 56°; Deniliquin, W., 14, cloudy and dull, temperature 69°; Eden, E.S.E., 14, fine, sea smooth, temperature 58°; Moruya, E.S.E., 14, raining, sea smooth, temperature 52°; Cape St. George, N.E., 14, fine, sea smooth, temperature 67°; Sydney, S.E., 12, overcast and gloomy, sea smooth, temperature 67°; Newcastle, W., 14, fine, sea smooth, temperature 80°; Port Macquarie, N.E., 14, fine but sultry, sea smooth, temperature 80°; Clarence River, N.E., 14, fine, sea smooth, temperature 78°; Walgett, W., 11, dull and sultry, temperature 78°; Dubbo, W., 14, overcast, temperature 72°; Goulburn, N.W., dull, temperature 65°.

STATE OF RIVERS.

Macintyre: At Mungindi, 14 feet. Barwon: At Mogil Mogil, 20 feet; at Walgett, 15 feet. Namoi: At Walgett, low. Culgoa. At Goodooga, 6 feet 2 inches. Darling: At Bourke, 17 feet 8 inches; at Louth, 30 feet 5 inches; at Tilpa, 36 feet 8 inches; at Wilcannia, 34 feet 7 inches; at Menindie, 27 feet; at Wentworth, 15 feet 5 inches. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 6 feet 9 inches; at Hay, 9 feet 4 inches; at Balranald, 11 feet. Murray: At Albury, 6 feet 6 inches; at Euston, 11 feet.

ASTRONOMICAL MEMORANDA FOR OCTOBER 14.

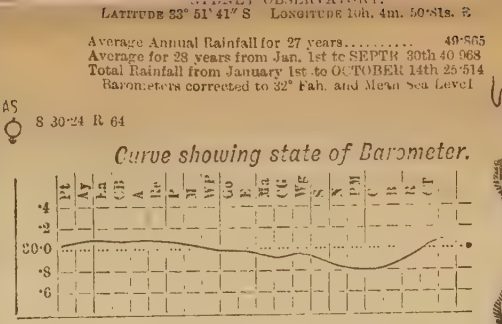
Sun rises at 5.22, sets at 6.11; Moon, 7.25 p.m., sets at 5.53 a.m.; Mercury, 5.31 a.m., 6.59 p.m.; Venus, 4.56 a.m., 5.10 p.m.; Mars, 7.42 a.m., 9.52 p.m.; Jupiter, 5.14 a.m., 5.50 p.m.; Saturn, 1.2 a.m., 11.4 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 14: 8.47 a.m., 9.5 p.m.

Albury	u	67 52	0·01	
Armidale	r,	74 55	0·38	
Balranald	b	80 47	0·02	
Bathurst	r,	73 50	0·55	
Bend'm'r	–|	—|	–	
Bodalla ..	r	62 50	0·38	
Bourke ..	r	85 57	1·51	
Br'w rrina	o	86 44	0·75	
Bundarra	–|	—|	–	
C'md'n H	c	80 64	0	
C.St.Geo	r	70 53	0·45	
Carcoar ..	r	68 56	0·45	
Casino ..	u	73 60	0	
Cassilis ..	r	75 58	0·20	
Clarence	–|	—|	–	
C'nd'b'lin	r	79 41	0·17	
Cooma ..	r	77 41	0·25	
Coonab'n	r	74 43	0·25	
Cowra ..	r	82 48	0·20	
Deniliq'n	b	72 40	0	
Dubbo ..	r	80 55	0·46	
Eden	u	63 51	0	
Euston ..	b	75 42	0	
Forbes ..	r	— 54	0·20	
Gl'n Inn's	r	75 51	0·90	
Goulburn	n	75 45	0·34	
Grafton ..	–|	—|	–	
Gulgong	c	78 59	0·30	
Gunned'h	r	79 60	0	
Hay	c	79 50	0·08	
Inverell ..	r	71 58	0·87	
Kiandra	r	65 34	0·23	
Lismore	u	89 62	0	
Maitland	r	85 58	0	
Marsdens	r	72 60	0·12	
Menindie	b	58 52	1·32	
Molong ..	r	74 49	0·52	
M'r'ng'r'll	r	70 58	0·16	
Moree ..	n	80 57	0·95	
Moruya ..	r	64 49	1·65	
Moss Vale	r	71 48	0·76	
Mt. Hope	r	68 —	0·60	
M.Vict'ria	r	72 47	0·30	
Mudgee	r	79	45	0·23
M'rr'm'bh	u	66	56	0.16
M'rr'ndi	r	72	59	0
Mus'lbr'k	u	60	52	0·30
Narrabri	r	84	58	0·25
Newcastle	c	82	61	0
Orange ..	r	69	47	0·49
Picton ..	r	79	53	0·39
P. M'q'rie	r	83	58	0
P. St'ph'n	c	85	54	0
Q'nbeyan	r	71	51	0·33
Quirindi	g	74	69	0
Singleton	g	70	66	0·02
SYDNEY ..	u	70	57	0·01
Tamw'rth	u	77	57	0
Taralga ..	r	75	45	0·50
Taree	c	85	62	0·01
T'nt'rfield	r	77	58	0·40
Wagga ..	r	76	54	0·28
Walcha ..	u	67	47	0·01
Walgett ..	r	85	56	1·20
Warrah ..	r	75	—	0
W'ntw'rth	b	66	47	0·03
W'll'ng'ng	r	75	54	0·59
Young ..	r	70	53	0·21

LATITUDE 33° 51' 41" S LONGITUDE 10h. 4m. 50·8ls. E

Average Annual Rainfall for 27 years..... 40·865
Average for 28 years from Jan. 1st to SEPTR 30th 40 068
Total Rainfall from January 1st to OCTOBER 14th 25·514
Barometers corrected to 32° Fah. and Mean Sea Level



Barometers on E. Coast fallen about 0·10

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light S.E. to S.W. winds and calms, slightly fallen barometers, and moderate sea. Rough sea at Albany and Carnarvon, and strong south wind at the latter place. No rain fallen. Extremes of barometers and temperature: Esperance Bay, 30·10 and 53°; Cossack, 29·84 and 75°.

South Australia.—On the coast cloudy, with light rain fallen at places during the night. Inland and Northern Territory fine and calm, with light scattered clouds in extreme north. Winds are light from S. to E., barometers have risen, and the sea is moderate. Rainfall. Streaky Bay, 0·06; Port Lincoln and Adelaide, 0·04; Robe and M'Donnell Bay, 0·01. Extremes of barometers and temperature: Eucla, 30·10; Port Augusta, 30·02 and 64°; M'Donnell Bay, 49°.

Victoria.—Generally fine and clear, with strong S. to E. winds, risen barometers and rough sea. Squally and misty on the coast. Rainfall: Wilson's Promontory, 0·16; Hamilton, 0·13; Capes Schanck and Otway, 0·03. Extremes of barometers and temperature: Cape Otway, 30·08; Hamilton, 29·97 and 46°; Horsham, 58°.

Tasmania.—Generally fine, with light S. to E. winds, risen barometers, and moderate sea. Rough sea and 0·05 inch rain at Southport. Extremes of barometers and temperature: Falmouth, 30·16; Circular Heads, 30·12 and 50°; Southport, 54°.

New Zealand.—On North Island passing showers of rain, with strong N.W. wind. In extreme south parts fine, with moderately strong S.W. wind. Barometers: Russell, 30·1; Wellington, 29·7; and Bluff, 29·6.

New South Wales.—Raining generally, except in north coast districts, where it is overcast and threatening, and in extreme S.W. parts, where it is fine and clear, but cold. Winds generally are rather strong from S. to E.; barometers have fallen, and the sea is smooth. Rain has fallen generally, heaviest along the Upper Darling from Menindie to Inverell, and in the districts near the ranges W. and S. of Sydney. Two stations report over 1½, 4 over 1, and 8 over 1 inch fallen. Heavy thunderstorm during the night at Walgett and at Inverell this morning. Extra stations: Nowra, max. 72°, min. 50°, rainfall 0·65 and still raining; Bundarra, max. 72°, min. 53°, raining steadily and heavy thunderstorm; Lake Cudgellico, max. 55°, min. 50°, rainfall 0·57, and raining steadily; Hill End, rainfall 0·64 and raining steadily since daylight; Condobolin, rainfall 0·17, raining lightly. For further particulars see map.

Queensland.—Generally fine and warm, with light northerly winds in south, and S.E. winds in north parts. No rain fallen. Extremes of barometers and temperature: Cooktown, 30·02; Townsville, 29·73 and 85°; Cape Moreton, 72°, and foggy.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 34, cloudy, rough sea, temperature 57°; Cape Otway, S.E., 40, misty and squally, sea rough, temperature 54°; Melbourne, S.E., 18, cloudy and squally, temperature 65°; Cape Schanck, E., 34, misty, rough sea, temperature 55°; Wilson's Promontory, E., 34, cloudy and squally, sea rough, temperature 53°.; Lakes Entrance, E., 28, fine and squally, temperature 58°.

New South Wales.—Menindie, calm, fine, temperture 63°; Wentworth, S.W., 28, fine, cool, temperature 61°; Deniliquin, S.E., 14, drizzling rain, temperature 64°; Eden, S.W., 14, raining, sea smooth, temperature 55°; Moruya, S.S.W., 28, thick, raining, sea smooth, temperature 52°; Sydney, S.S.E., 22, raining heavily, sea heavy, temperature 61°; Clarence River, S., 1, thunder, lightning, and rain, temperature 67°; Walgett, N.W., strong wind, temperature 66°; Dubbo, calm, raining, temperature 64°; Goulburn, E.N.E., 1, showery, temperature 61°.

STATE OF RIVERS.

Macintyre: At Mungindi, 14 feet. Barwon: At Mogil Mogil, 21 feet; at Walgett, 18 feet. Namoi: At Walgett, low. Culgoa: At Goodooga, 7 feet. Darling: At Brewarrina, 2 feet; at Bourke, 17 feet 2 inches; at Louth, 29 feet 3 inches; at Tilpa, 36 feet 8 inches; at Menindie, 27 feet 8 inches; at Pooncarie, 22 feet 8 inches; Wentworth, 15 feet 10 inches. Murrumbidgee: At Gundagai, 5 feet 9 inches; at Wagga, 6 feet 3 inches; at Hay, 9 feet 10 inches; at Balranald, 14 feet 1 inch. Murray: At Albury, 6 feet; at Euston, 14 feet 1 inch.

ASTRONOMICAL MEMORANDA FOR OCTOBER 15.

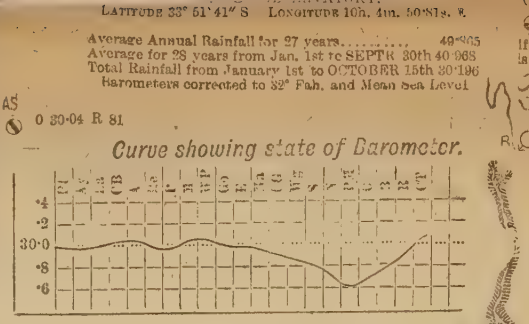
Sun rises at 5.21, sets at 6.12; Moon, 8.22 p.m., sets at 6.29 a.m.; Mercury, 5.51 a.m., 7.3 p.m.; Venus, 4.55 a.m., 5.12 p.m.; Mars, 7.41 a.m., 9.52 p.m.; Jupiter, 5.11 a.m., 5.47 p.m.; Saturn, 12.58 a.m., 11 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 15: 9.23 a.m., 9.41 p.m.

Armidale	u	60	62	1·40
Balranald	g	77	42	0
Bathurst	u	56	49	0·72
Bend'm'r	r	55	52	1·41
Bodalla ..	r	55	51	1·75
Bourke ..	b	68	54	0·05
Br'w'rrina	c	69	40	0·08
Bundarra	c	66	58	1·65
C'md'n H	c	67	60	0·43
C. St. Geo	r	59	49	1·38
Carcoar ..	u	55	51	0
Casino ..	b	77	56	1·58
Cassilis ..	c	63	56	0·76
Clarence	b	72	60	1·61
C'nd'b'lin	c	71	38	0·03
Cooma ..	r	58	42	0·73
Coonab'n	b	64	35	1·27
Cowra ..	c	82	49	0·50
Deniliq'n	r	65	46	0·12
Dubbo ..	b	64	48	0·69
Eden	—	—	—	—
Euston ..	c	75	48	0
Forbes ..	c	—	44	0·24
Gl'n Inn's	r	51	48	1·93
Goulburn	u	54	47	0·47
Grafton ..	b	71	59	1·25
Gulgong ..	b	70	48	0·45
Gunned'h	c	68	55	0·92
Hay	r	76	51	0·09
Inverell ..	u	68	55	1·84
Kiandra ..	c	65	40	0·27
Lismore ..	r	75	53	0·47
Maitland ..	g	65	40	1·03
Marsdens ..	c	65	55	0·09
Menindie ..	b	65	51	0
Molong ..	b	59	45	0·56
M'r'ng'r'll	b	69	53	0·35
Moree ..	g	80	54	0·51
Moruya ..	r	57	51	1·57
Moss Vale	r	55	48	1·56
Mt. Hope	b	62	—	1·08
M. Vict'ria	r	72	43	1·35
Mudgee	u	63	45	0·54
M'r'm'bh	c	66	49	0·30
M'r'r'ndi	g	66	55	2·16
Mus'br'k	g	66	52	0·70
Narrabri	b	75	49	0·55
Newcastle	n	65	57	2·44
Orange ..	c	54	44	0·82
Picton ..	r	67	59	1·92
P. M'q'rie	b	69	55	0·97
P. St'ph'n	r	70	54	1·51
Q'nbeyan	c	51	47	0·28
Quirindi	r	66	54	1·59
Singleton	u	62	60	0·60
SYDNEY ..	r	61	58	4·08
Tamw'rth	u	69	54	0·83
Taralga ..	r	51	45	0·80
Taree	u	68	59	0
T'nt'rfield	g	69	57	0·80
Wagga ..	c	69	49	0·35
Walcha ..	r	55	45	1·56
Walgett ..	b	69	56	0·25
Warrah ..	g	64	—	0
W'ntw'rth	b	69	47	0
W'll'ng'ng	r	61	55	3·63
Young ..	c	60	46	0·35

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years. 49·365
Average for 28 years from Jan. 1st to SEPTR 30th 40·968
Total Rainfall from January 1st to OCTOBER 15th 30·196
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty: n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine along the west coast, cloudy in south, with light westerly winds and smooth sea. Extremes of barometers and temperature: Geraldton, 30·12; Cossack, 29·82 and 77°; Esperance Bay, 51°.

South Australia.—Generally fine, but cloudy, with light southerly winds, steady barometers, and smooth sea. Squally at M'Donnell Bay. No rain fallen. Extremes of barometers and temperature: On the coast: Cape Borda, 30·05 and 52°; Robe, 29·99; and Eucla, 62. In Northern Territory: Daly Waters, 29·93 and 89°; Port Darwin, 29·88 and 77°.

Victoria.—Generally overcast and threatening, with strong easterly winds, steady barometers, and rough sea, squally and misty on the coast, showery at Melbourne. Rainfall: Ballarat, 0·14; Omeo, 0·12; Melbourne, 0·11; and a couple of points at a few other places. Extremes of barometers and temperature: Lakes Entrance, 30·10; Hamilton, 29·97; Horsham, 58°, and Omeo, 47°.

Tasmania.—Generally fine, with light N.E. to S.E. winds, steady barometers, and rough sea. Extremes of barometers and temperature: Falmouth, 30·24; Circular Head, 30·17; Southport, 55°; and Low Heads, 48°.

New Zealand.—Generally unsettled, with S.W. winds and risen barometers. At Wellington it is showery, with streng S.W. wind, and 0·32 inch rain fallen. Barometers: Russell, 30·1; Wellington, 30·0; and Bluff, 30·2.

Queensland.—Generally fine; in south light S.W. winds; in north calm and sultry. Rainfall: Brisbane, 0·35; Rockhampton, 0·05. Extremes of barometers and temperature: Cooktown, 30·06 and 86°; Townsville, 29·71; and Brisbane, 72°.

New South Wales.—In the eastern division it is overcast and threatening, with passing showers of light rain in places, principally in south coast districts, and on the range in north. Along the coast a strong southerly gale is blowing, with heavy sea south of Newcastle. In the Western division it is generally fine. During the last 24 hours rain has fallen generally—light in N.W. and N. parts, moderate along the range, and very heavy in places on the coast. Burwood reports 6·34 inches fallen; Sydney, 4·68; and Wollongong, 3·63. Several stations in north coast districts have had above 2 inches, and along the range some 20 stations report from 1 to 2 inches. Winds generally are strong southerly, with east winds in south and westerly in north parts. Barometers have fallen on the coast, but are steady elsewhere. Extra stations: Newton Boyd, rainfall 2·27 inches; Nowra, rainfall 2·19 inches, and occasional showers; Bega, rainfall 1·82 inches, and still raining; Camden, rainfall 1·75 inches, and threatening; Lawrence, rainfall 1·25 inches; Hill End, rainfall 0·87 inches, and threatening; Lake Cudgelligo, max. 64°, min. 49°, rainfall 1 inch, and cloudy. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 40, fine, rough sea, temperature 58°; Cape Otway, S.E., 40, gloomy and misty, rough sea, temperature 55°; Melbourne, E., 13, cloudy and threatening, temperature 59°; Cape Schanck, E., 23, squally and cloudy, rough sea, temperature 55°; Wilson's Promontory, E., 34, cloudy and squally, rough sea, temperature 53°.; Lakes Entrance, E., 28, cloudy and misty, temperature 59°.

New South Wales.—Wentworth, N.W., 14, fine, clear, temperature 64°; Deniliquin, S.E., 14, dull, temperature 63°; Moruya, W.S.W., 32, showery, very rough sea, temperature 59°; Cape St. George, S.S.E., temperature 56°; showery, rough sea, temperature 59°; Sydney, S.S.E., 32, stormy, light showers, temperature 59°; Newcastle, S., 28, stormy, rough sea, temperature 63°; Port Macquarie, S.S.W., 56°, fine, moderate sea, temperature 72°; Walgett, W.S.W., cloudy, temperature 71°; Dubbo, N.W., 14, fine, but cloudy, temperature 66°; Goulburn, N.E., 14, dull, temperature 58

The weather had been showery at Sydney, with squalls of wind. Rain up to 9 p.m. only amounted to 0·21, Rain clearing off at 9 p.m.; fine weather returning.

STATE OF RIVERS.

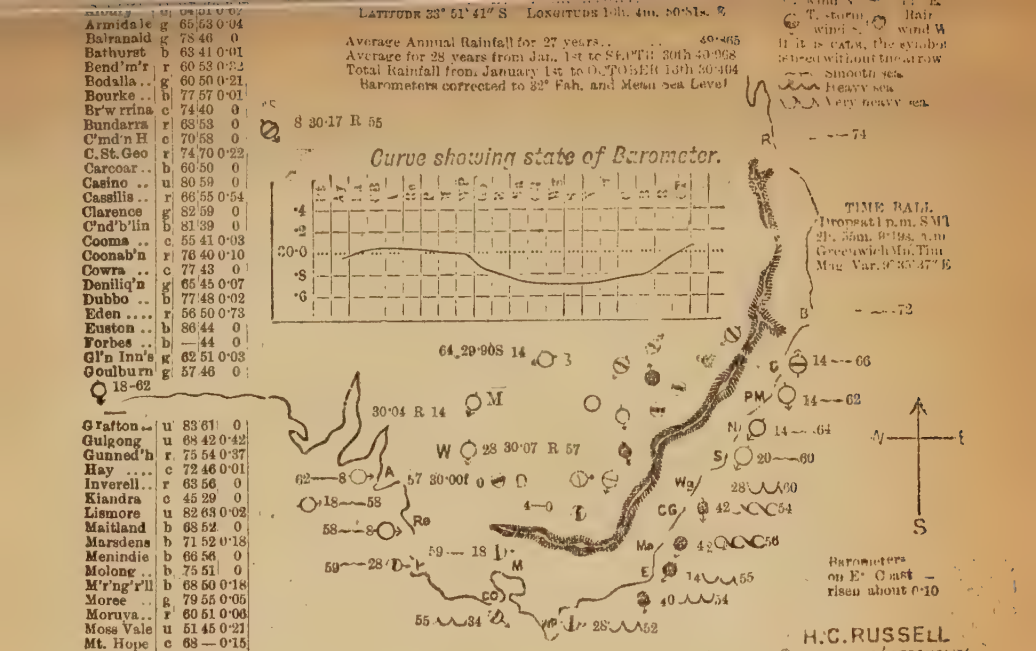
Macintyre: At Mungindi, 14 feet. Barwon: At Mogil Mogil, 22 feet 6 inches; at Walgett, 22 feet. Namoi: At Walgett, low. Culgoa: At Goodooga, 7 feet 6 inches. Darling: At Brewarrina, 3 feet; at Bourke, 16 feet 9 inches; at Louth, 26 feet 6 inches; at Tilpa, 36 feet 4 inches; at Wilcannia, 34 feet 7 inches; at Menindie, 27 feet 5 inches; at Pooncarie, 22 feet 8 inches; at Wentworth, 15 feet 10 inches. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 6 feet 2 inches; at Hay, 10 feet 2 inches; at Balranald, 14 feet 3 inches. Murray: At Albury, 5 feet 8 inches; at Euston, 14 feet 1 inch.

ASTRONOMICAL MEMORANDA FOR OCTOBER 16.

Sun rises at 5.19, sets at 6.12; Moon, 9.19 p.m., 7.6 a.m.; Mercury, 5.51 a.m., 7.5 p.m.; Venus, 4.54 a.m., 5.14 p.m.; Mars, 7.40 a.m., 9.51 p.m.; Jupiter, 5.8 a.m., 5.44 p.m.; Saturn, 12.54 a.m., 10.56 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 16: 9.58 a.m., 10.17 p.m.

Armidale	g	65	53	0·04
Balranald	g	78	46	0
Bathurst	b	63	41	0·01
Bend'm'r	r	60	53	0·32
Bodalla ..	g	60	50	0·21
Bourke ..	b	77	57	0·01
Br'w rrina	c	74	40	0
Bundarra	r	63	53	0
C'md'n H	c	70	58	0
C. St. Geo	r	74	70	0·22
Carcoar ..	b	60	50	0
Casino ..	u	80	59	0
Cassilis ..	r	66	55	0·54
Clarence	g	82	59	0
C'nd'b'lin	b	81	39	0
Cooma ..	c	55	41	0·03
Coonab'n	r	76	40	0·10
Cowra ..	c	77	43	0
Deniliq'n	g	65	45	0·07
Dubbo ..	b	77	48	0·02
Eden	r	56	50	0·73
Euston ..	b	86	44	0
Forbes ..	b	—	44	0
Gl'n Inn's	g	62	51	0·03
Goulburn	g	57	46	0
Grafton ..	u	83	61	0
Gulgong	u	68	42	0·42
Gunned'h	r	75	54	0·37
Hay	c	72	46	0·01
Inverell ..	r	63	56	0
Kiandra	c	45	29	0
Lismore	u	82	63	0·02
Maitland	b	68	52	0
Marsdens	b	71	52	0·18
Menindie	b	66	56	0
Molong ..	b	75	51	0
M'r'ng'r'll	b	68	50	0·18
Moree ..	g	79	55	0·05
Moruya ..	r	60	51	0·06
Moss Vale	u	51	45	0·21
Mt. Hope	c	68	—	0·15
M. Vict'ria	b	65	34	0
Mudgee	o	73	46	0·21
M'rr'm'bh	b	63	52	0
M'rr'r'ndi	c	62	54	0·07
Mus'lbr'k	g	72	57	0
Narrabri	r	76	57	0·12
Newcastle	b	62	53	0·02
Orange ..	b	60	40	0
Picton ..	b	61	50	0·03
P. M'q'rie	c	73	54	0
P. St'ph'n	b	67	48	0·05
Q'nbeyan	c	58	41	0
Quirindi	g	74	53	0·13
Singleton	g	65	50	0
Sydney ..	o	61	52	0·21
Tamw'rth	-	—	—	-
Taralga ..	g	58	43	0·05
Taree	g	71	56	0·01
T'nt'rfield	c	67	57	0
Wagga ..	c	72	52	0·43
Walcha ..	r	61	45	0·10
Walgett ..	b	76	59	0
Warrah ..	u	70	55	0·70
W'ntw'rth	b	78	49	0
Wl'ng'ng	c	67	53	0·07
Young ..	r	70	47	0·10



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along westwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, cloudy, with light N.E. wind, and barometer steady at 29·96′, temperature 56°.

South Australia.—Generally fine, with scattered clouds, light southerly winds, steady barometers, and smooth sea. Rainfall: The Peak, 0·25; Farina, 0·08. Extremes of barometers and temperature:—On the coast: Cape Borda, 30·06; M'Donnell Bay, 30·0; Port Augusta, 53°; and Eucla, 62. In Northern Territory: Daly Waters, 29·84 and 89°; Port Darwin, 29·86 and 79°.

Victoria.—Generally unsettled, with S.E. wind, steady barometers, and rough sea; squally and misty on the coast. Rainfall: At a few scattered places from 0·01 to 0·09 inch has fallen. Extremes of barometers and temperature: Cape Otway, 30·07; Omeo, 29·94; Horsham, 60°; and Hamilton, 52°.

Tasmania.—In north fine, along the east coast cloudy, with easterly winds and rough sea. Extremes of barometers and temperature: Hobart, 30·18; Circular Head, 30·09 and 54°; Falmouth, 49°.

New Zealand.—Generally fine, with N.E. to S.E. winds; strong S.E. wind at Gisborne, gloomy in extreme north parts. Barometers: Russell, 30·1; Wellington, 30·2; and Bluff, 30·3.

New South Wales.—In western division fine, with scattered clouds; in east overcast and threatening, with light rain and showers in south coast district and on the range in north. Winds generally are moderate from S. to S.E.; barometers are almost steady, and the sea is rough south but moderate north of Sydney. During the last 24 hours light rain has fallen in the eastern division generally, heaviest on the range and in south parts, where several stations report from ½ to ¾ inch fallen. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·07; Forbes, 29·68; Lismore, 66.; and Kiandra, 42°. Reading of standard barometer at Sydney corrected to 32° Fahrenheit and mean sea level at 9 a.m.: 29·752. Extra stations: Bega, rainfall 0·31 inch and still raining; Nowra, max. 58°, min. 50°, rain 0·30; Lake Cudgellico, max. 65°, min. 50°, and cloudy. For further particulars see map.

Queensland.—Generally fine, with variable winds and calms, steady barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: Cooktown, 30·05 and 94°; Townsville, 29·67; and in south parts, 72°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 30, fine, smooth sea, temperature 66°; Cape Otway, S.S.E., 36, squally, threatening, moderate sea, temperature 56°; Melbourne, no report; Wilson's Promontory, S.E., 30, squally, rough sea, temperature 52°.

New South Wales.—Menindie, S., 14, fine, temperature 69°; Wentworth, S.W., 28, fine, temperature 64°; Deniliquin, S., 14, cloudy, temperature 65°; Eden, S., 14, showery, temperature 56°; Cape St. George, S., 42, squally with rain, temperature 58°; Sydney, S., 10, showery, moderate sea, temperature 64°; Newcastle, S., 10, fine, moderate sea, temperature 65°; Port Macquarie, N.N.E., 14, cloudy, sultry, moderate sea, temperature 70°; Clarence River, calm, fine, smooth sea, temperature 65°; Dubbo, S.W., 14, fine, temperature 66°; Goulburn, S.W., 10, cloudy, temperature 58°.

STATE OF RIVERS.

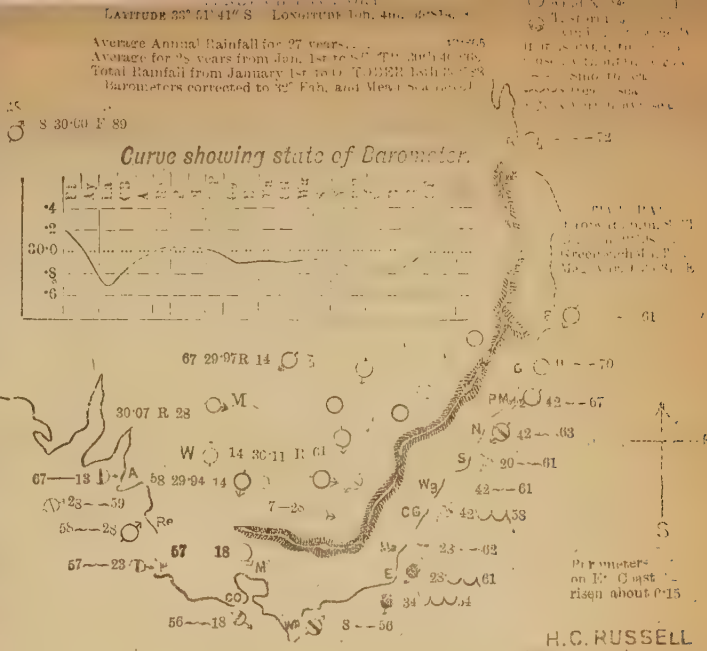
Macintyre: At Mungindi, 14 feet 6 inches. Barwon: At Mogil Mogil, 24 feet 2 inches; at Walgett, 21 feet 6 inches. Namoi: At Walgett, 2 feet 6 inches. Culgoa: At Goodooga, 7 feet 8 inches. Darling: At Brewarrina, 4 feet; at Bourke, 16 feet 9 inches; at Louth, 25 feet 6 inches; at Tilpa, 35 feet 8 inches; at Wilcannia, 34 feet 7 inches; at Menindie, 27 feet 6 inches; at Pooncarie, 22 feet 9 inches; at Wentworth, 15 feet 11 inches. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 5 feet 9 inches; at Hay, 10 feet 3 inches; at Balranald, 14 feet 5 inches. Murray: At Albury, 6 feet; at Euston, 14 feet 1 inch.

ASTRONOMICAL MEMORANDA FOR OCTOBER 18.

Sun rises at 5.17, sets at 6.14; Moon, 11.12 p.m., 8.35 a.m.; Mercury, 5.52 a.m., 7.13 p.m.; Venus, 4.53 a.m., 5.18 p.m.; Mars, 7.37 a.m., 9.50 p.m.; Jupiter, 5.2 a.m., 5.38 p.m.; Saturn, 12.46 a.m., 10.48 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 18: 11.16 a.m., 10.38 p.m.

Albury	b	73	46	0·06
Armidale	b	63	46	0·07
Balranald	b	80	48	0
Bathurst	b	63	42	0
Bend'm'r	c	65	49	0·37
Bodalla ..	c	66	54	0·30
Bourke ..	b	82	51	0
Br'w'rrina	b	77	41	0
Bundarra	b	66	50	0
C'md'n H	b	73	59	0
C. St. Geo	c	63	48	0
Carcoar ..	b	64	49	0·17
Casino ..	b	81	52	0
Cassilis ..	b	67	56	0·04
Clarence	b	81	59	0
C'nd'b'lin	b	86	39	0
Cooma ..	c	57	43	0·30
Coonab'n	b	70	30	0
Cowra ..	b	79	44	0·08
Deniliq'n	b	76	37	0
Dubbo ..	b	71	43	0
Eden	r	62	53	1·03
Euston ..	b	78	42	0
Forbes ..	b	—	51	0
Gl'n Inn's	b	68	42	0·15
Goulburn	g	58	44	0·09
Grafton ..	b	81	62	0
Gulgong	b	68	43	0
Gunned'h	b	74	49	0·12
Hay	b	73	44	0
Inverell ..	b	69	46	0
Kiandra	b	56	28	0
Lismore	b	81	57	0
Maitland	c	73	55	0·03
Marsdens	b	71	51	0
Menindie	b	70	58	0
Molong ..	b	71	34	0
M'r'ng'r'll	b	75	46	0
Moree ..	b	80	55	0
Moruya ..	g	66	52	0
Moss Vale	b	53	48	0·24
Mt. Hope	b	68	—	0
M. Vict'ria	b	60	40	0·15
Mudgee	b	74	41	0
M'rr'm'bh	b	75	46	0
M'rr'r'ndi	o	65	52	0·08
Mus'br'k	g	76	52	0
Narrabri	b	73	47	0·15
Newcastle	c	72	57	0·05
Orange ..	b	60	42	0
Picton ..	c	62	53	0·07
P. M'q'rie	b	76	57	0
P. St'ph'n	r	71	51	0·39
Q'nbeyan	c	58	48	0·04
Quirindi	c	69	59	0·40
Singleton	c	66	57	0·06
SYDNEY ..	c	63	56	0·18
Tamw'rth	b	68	48	0
Taralga ..	g	62	43	0
Taree	g	76	59	0·01
T'nt'rfield	b	67	51	0·30
Wagga ..	b	58	44	0
Walcha ..	b	59	47	0·25
Walgett ..	b	74	53	0
Warrah ..	b	75	55	0
W'ntw'rth	b	76	50	0
W'll'ng'ng	c	65	57	0·04
Young ..	b	88	42	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; rn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown. Pt Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. In and the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, Cooma and Springs. The barometer curve enables one at a glance to trace the progress, beginning with Western Australia, and passing along eastwards; northern winds preceding them, and southerly following.

Western Australia.—On the west coast fine, with light S.E. to S. winds; in south parts overcast and threatening, with fresh westerly winds; sea smooth. Rainfall—Perth, 0.13; Albany, 0·07, and showery; Esperance Bay, 0·03. Extremes of barometers and temperature—Perth, 30·16; Albany, 29·95 and 51°; Cossack, 77°.

South Australia.—Generally cloudy and threatening, with light northerly winds, fallen barometers, and smooth sea; raining on the coast west of Adelaide. Rainfall—From one to three points on and near the coast. Extremes of barometers and temperature—On the coast: Robe, 30·02; Eucla, 29·64; Adelaide, 67°; and M'Donnell Bay, 55°.

Victoria.—Generally cloudy and unsettled, with light easterly wind, steady barometers, and rough sea; misty and heavy dew on the coast. Rainfall: Lakes' Entrance, 0·08 inch. Extremes of barometers and temperature: Lakes' Entrance, 30·08; Hamilton, 29·98, and 51°; Horsham, 60°.

Tasmania.—In north parts fine; in south, light misty rain, with light N.E. to S.E. winds and moderate sea; 0·02 inch rain fallen at Hobart, and rough sea off Falmouth. Extremes of barometers and temperature: Low Heads, 30·08 and 56°; Falmouth, 30·02; and Hobart, 50°.

New Zealand.—Generally fine; in North Island, strong westerly winds; in extreme South, calm. Barometers: Russell, 30·1; Gisborne, 30·3; Wellington and Bluff, 30·2.

Queensland.—Generally fine, with light S.E. to S.W. winds in south parts, and calms in north, steady barometers, and moderate sea. Extremes of barometers and temperature: Cooktown, 30·03 and 91°; Brisbane, 29·84 and 61°.

New South Wales.—West of the range fine and warm; in coast districts unsettled, with light rain in places, principally in south. Winds are chiefly from S. to S.E., and rather strong; barometers have risen slighly; and the sea is moderating, but is still rough south of Cape St. George. During the last 48 hours light rain has fallen in the eastern division generally; the heaviest fall, 1·03 inch, occurred at Eden, where it is still raining. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·11; Forbes, 29·68; Clarence, 70°; and Mount Victoria, 49°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m., 29·915. Extra stations: Nowra, max 61°, min. 53°, rainfall 0·27, and clearing; Lake Cudgellico, max 76°, min. 47°, fine and warm. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.S.E., 28, fine, smooth sea, temperature 60°; Cape Otway, E.S.E., 28, fine, smooth sea, temperature 58°; Melbourne, S.W., 13, fine, smooth sea, temperature, 68°; Cape Schanck, S.E., 8, fine, smooth sea, temperature 59°; Wilson's Promontory, N.E., 13, fine, moderate sea, temperature 66°; Lakes' Entrance, S.E., 13, fine, smooth sea, temperature 65°.

New South Wales.—Menindie, calm, fine, temperature 70°; Wentworth, N., fine, temperature 66°; Deniliquin, S., fine, temperature 66°; Eden, S.W., 42, fine, smooth, temperature 63°; Moruya, S., 42, fresh gale, moderate sea, temperature 61°; Cape St. George, S.S.E., 42, fine, sea moderating, temperature 62°; Sydney, S., 28, fine, squally and cold, moderate sea, temperature 67°; Newcastle, S.S.W., 28, cloudy, moderate sea, temperature 66°; Port Macquarie, S.S.W., 42, fine, smooth sea, temperature 75°; Clarence River, S.E., 28, fine, smooth sea, temperature 74°; Walgett, calm, fine, temperature 74°; Dubbo, calm, cloudy, temperature 67°; Goulburn, calm, fine, temperature 66°.

STATE OF RIVERS.

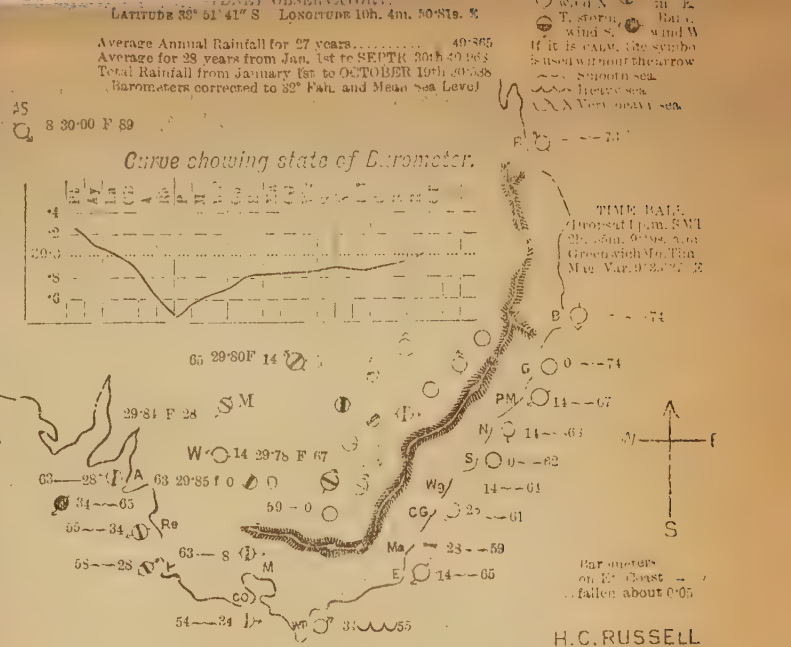
Macintyre: At Mungindi, 16 feet. Barwon: At Mogil Mogil, 27 feet; at Walgett, 24 feet. Namoi: At Walgett, 5 feet. Gwydir: At Goodooga, 8 feet. Darling: At Brewarrina, 7 feet 6 inches; at Bourke, 17 feet; at Louth, 25 feet; at Tilpa, 30 feet; at Wilcannia, 34 feet 7 inches; at Menindie, 27 feet 8 inches; at Pooncarie, 23 feet 9 inches; at Wentworth, 16 feet 10 inches. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 6 feet 6 inches; at Hay, 9 feet 8 inches; at Balranald, 14 feet 5 inches. Murray: At Albury, 5 feet 10 inches; at Euston, 14 feet 10 inches.

ASTRONOMICAL MEMORANDA FOR OCTOBER 19.

Sun rises at 5.16, sets at 6.15; Moon sets 9.26 a.m., Mercury, 5.52 a.m., 7.17 p.m.; Venus, 4.52 a.m., 5.20 p.m.; Mars, 7.36 a.m., 9.50 p.m.; Jupiter, 4.59 a.m., 5.35 p.m.; Saturn, 12.42 a.m., 10.44 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 19: 11.59 a.m.

Albury	b	72 52	0
Armidale	b	66 46	0
Balranald	c	88 43	0
Bathurst	h	70 45	0
Bend'm'r	b	68 46	0
Bodalla ..	c	72 51	0
Bourke ..	c	83 51	0
Br'w'rrina	c	91 43	0
Bundarra	b	68 53	0
C'md'n H	c	74 70	0
C.St.Geo	b	66 59	0
Carcoar ..	b	60 51	0
Casino ..	b	85 65	0
Cassilis ..	c	70 50	0
Clarence	b	82 58	0
C'nd'b'lin	g	81 41	0
Cooma ..	c	63 38	0·02
Coonab'n	g	76 29	0
Cowra ..	g	80 44	0
Deniliq'n	g	83 46	0
Dubbo ..	g	76 46	0
Eden	b	64 55	0
Euston ..	b	88 58	0
Forbes ..	b	— 49	0
Gl'n Inn's	b	67 42	0
Goulburn	b	70 47	0
Grafton ..	b	87 58	0
Gulgong	b	73 43	0
Gunned'h	b	77 53	0
Hay	u	76 44	0·11
Inverell ..	b	74 46	0
Kiandra	c	63 30	0
Lismore	b	87 61	0·27
Maitland	c	72 57	0
Marsdens	c	74 57	0
Menindie	o	67 58	0·02
Molong ..	b	81 46	0
M'r'ng'r'll	g	80 50	0
Moree ..	b	81 56	0
Moruya ..	g	65 54	0
Moss Vale	b	61 49	0
Mt. Hope	g	72 —	0
M.Vict'ria	b	64 40	0
Mudgee	g	77 45	0
M'rr'm'bh	c	78 52	0
M'rr'r'ndi	b	65 52	0
Mus'lbr'k	b	86 45	0
Narrabri	b	80 49	0
Newcastle	b	72 58	0
Orange ..	g	60 42	0
Picton ..	c	67 55	0
P. M'q'rie	b	75 55	0
P. St'ph'n	c	68 51	0
Q'nbeyan	c	64 53	0
Quirindi	b	79 51	0
Singleton	b	73 61	0
SYDNEY ..	c	67 58	0
Tamw'rth	b	70 46	0
Taralga ..	b	69 42	0
Taree	b	77 58	0
T'nt'rfield	b	73 65	0
Wagga ..	c	78 51	0
Walcha ..	b	67 37	0
Walgett ..	c	78 55	0
Warrah ..	b	74 50	0
W'ntw'rth	b	82 61	0
W'll'ng'ng	b	68 58	0
Young ..	g	87 51	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the west coast fine, with S. to S.E. winds and moderate sea; in south parts cloudy and unsettled, with westerly winds and smooth sea. A few points of rain fallen along the south coast. Extremes of barometers and temperature—Geraldton, 30·32; Cossack, 29·91 and 78°; Esperance Bay, 57°.

South Australia.—Generally overcast and threatening, with strong south to west winds, risen barometers, and moderate sea; squally with light showers on the coast. Light rain has fallen generally, and thunder and lightning passed over several stations during the night. Extremes of barometers and temperature—Eucla, 30·04; M'Donnell Bay, 29·40; Cape Borda, 65.; and Robe, 55°.

Victoria.—Generally cloudy and threatening, with strong easterly winds, fallen barometers, and moderate to rough sea. Squally on the coast; showery at Hamilton. Rainfall: A few points has fallen in west parts. Extremes of barometers and temperature: Lakes' Entrance, 29·83; Portland, 29·48; Cape Otway, 54°: and Melbourne, 63°.

Tasmania.—Generally fine, with light variable winds and calm, fallen barometers, and moderate to rough sea. No rain fallen. Extremes of barometers and temperature: Southport, 29·89; Falmouth, 29·85; Hobart, 52°; and Low Heads, 56°.

New Zealand.—On North Island showery and squally, with strong N. to N.W. winds. In extreme south parts gloomy, with S.E. winds. Barometers: Russell, 29·8; Gisborne and Bluff, 30°; Wellington, 30·2.

New South Wales.—Generally unsettled and close, with overcast sky in places, principally west of the range; stormy in extreme west, and light rain falling at Wilcannia; hot wind and dusty at Euston. Winds generally are light, in west parts N. to W., in east southerly winds; barometers have fallen, and the sea is moderate. Light rain has fallen at places along the Victorian border. Extremes of barometers and temperature at 9 a.m.: Clarence, 29·91 and 74°; Forbes, 29·66; and Cooma, 52°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m., 29·865. Extra stations: Max. 69°, min. 50°, clear and calm; Lake Cudgellico, max. 62°, min. 47°, like rain. For further particulars see map.

Queensland.—Generally fine, in south light S. to W. winds, in north parts calm. Extremes of barometers and temperature: Cooktown, 30·05 and 80°; Townsville, 29·82; and Cape Moreton, 68°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 48, showery, smooth sea, temperature 60°; Cape Otway, E., 30, showery, smooth sea, temperature 55°; Melbourne, N., 67, showery, temperature, 57. Cape Schanck, calm, showery, smooth sea, temperature 57°; Wilson's Promontory, N.E., 38, squally, rough sea, temperature 58°; Lakes' Entrance, E., 30, fine, temperature 63°.

New South Wales.—Menindie, W., 28, cloudy and dull, temperature 72°; Wentworth, W., 28, fine and warm, temperature 55°; Deniliquin, N.W., dull, temperature 71°; Eden, E., 14, fine, smooth sea, temperature 60°; Moruya, N.E., 14, dull, moderate sea, temperature 63°; Cape St. George, E., 14, fine, moderate sea, temperature 66°; Sydney, E.N.E., 10, cloudy and dull, smooth sea, temperature 65°; Newcastle, N.E., 14, fine, smooth sea, temperature 66°; Port Macquarie, E.S.E., 14, cloudy, moderate sea, temperature 76°; Clarence River, N.E., 14, dull, smooth sea, temperature 75°; Wallaroo, S.S.E., dull and threatening, temperature 70°; Dubbo, calm, misty rain, temperature 63°; Goulburn, N.W., dull, temperature 62°.

STATE OF RIVERS.

Macintyre: At Mungindi, 17 feet. Barwon: At Mogil Mogil, 28 feet; at Walgett, 26 feet. Namoi: At Walgett, 6 feet 6 inches. Culgoa: At Goodooga, 8 feet 3 inches. Darling: At Brewarrina, 5 feet; at Bourke, 17 feet 3 inches; at Louth, 24 feet 3 inches; at Tilpa, 33 feet; at Wilcannia, 34 feet 7 inches; at Menindie, 27 feet 9 inches; at Pooncarie, 22 feet 10 inches; at Wentworth, 16 feet. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 6 feet 3 inches; at Hay, 9 feet 3 inches; at Balranald, 14 feet 10 inches. Murray: At Albury, 5 feet 6 inches; at Euston, 14 feet 1 inch.

ASTRONOMICAL MEMORANDA FOR OCTOBER 20.

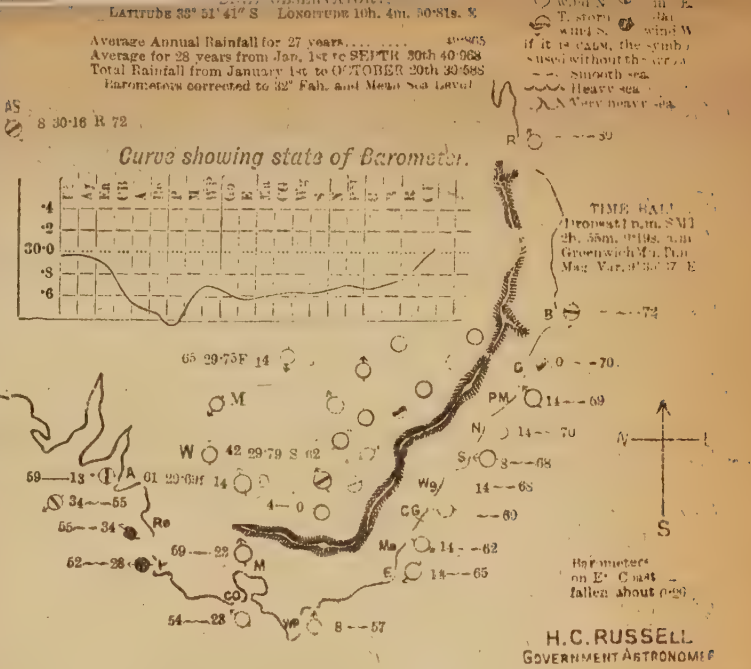
Sun rises at 5.14, sets at 6.16; Moon rises 12.8 a.m., sets 10.22 a.m., Mercury, 5.52 a.m., 7.20 p.m.; Venus, 4.51 a.m., 5.22 p.m.; Mars, 7.35 a.m., 9.49 p.m.; Jupiter, 4.56 a.m., 5.32 p.m.; Saturn, 12.38 a.m., 10.49 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 20: 12.24 a.m., 12.49 p.m.

Armidale	b	66 46	0
Balranald	b	91 49	0
Bathurst	b	69 49	0·01
Bend'm'r	b	65 50	0·21
Bodalla ..	b	68 49	0
Bourke ..	b	75 52	0·07
Br'w'rrina	b	72 37	0·07
Bundarra	b	67 53	0·25
C'md'n H	b	73 61	0
C. St. Geo	b	71 60	0
Carcoar ..	b	64 51	0·08
Casino ..	b	85 59	0
Cassilis ..	b	67 61	0
Clarence	c	71 59	0
C'nd'b'lin	c	59 47	0·07
Cooma ..	b	72 42	0
Coonab'n	b	69 30	0·21
Cowra ..	g	91 45	0·02
Deniliq'n	b	77 39	0
Dubbo ..	b	66 47	0·09
Eden	b	65 54	0
Euston ..	g	76 51	0
Forbes ..	b	— 50	0
Gl'n Inn's	b	62 46	0·19
Goulburn	b	70 48	0
Grafton ..	g	82 61	0
Gulgong	c	63 42	0
Gunned'h	b	71 52	0·12
Hay	b	77 43	0
Inverell ..	b	73 49	0
Kiandra	c	65 35	0·42
Lismore	b	85 66	0
Maitland	b	79 58	0
Marsdens	b	65 54	0·25
Menindie	b	65 57	0
Molong ..	b	64 49	0
M'r'ng'r'll	g	72 57	0·25
Moree ..	b	79 53	0
Moruya ..	b	68 53	0
Moss Vale	b	67 52	0
Mt. Hope	b	64 —	0·32
M. Vict'ria	c	66 40	0
Mudgee	g	68 45	0·05
M'rr'm'bh	c	66 52	0·20
M'rr'ndi	b	66 55	0
Mus'br'k	h	88 53	0·03
Narrabri	b	98 60	0·16
Newcastle	b	74 58	0
Orange ..	b	64 47	0·10
Picton ..	b	73 54	0
P. M'q'rie	b	74 55	0
P. St'ph'n	b	72 57	0
Q'nbeyan	b	69 52	0
Quirindi	b	79 50	0
Singleton	b	76 61	0
Sydney ..	c	69 57	0
Tamw'rth	b	73 49	0
Taralga ..	b	68 43	0
Taree	b	89 59	0·02
T'nt'rfield	b	75 65	0
Wagga ..	b	71 49	0·21
Walcha ..	b	66 38	0·08
Walgett ..	b	77 52	0
Warrah ..	b	73 50	0
W'ntw'rth	b	82 50	0
W'll'ng'ng	b	73 60	0
Young ..	g	69 50	0

Latitude 33° 51′ 41″ S Longitude 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years.....
Average for 28 years from Jan. 1st to SEPTR 30th 40·968
Total Rainfall from January 1st to OCTOBER 20th 39·588
Barometers corrected to 32° Fah. and Mean Sea Level



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour: next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the south coast cloudy, with light westerly winds, fallen barometers and smooth sea; showery at Albany. Extremes of barometers and temperature—Esperance Bay, 29·95 and 50°; Albany, 29·83 and 66°.

South Australia.—Generally cloudy and threatening, with rather strong W. to S.W. winds, fallen barometers, and moderate to rough sea. Heavy rain and squally on the coast east of Adelaide. Heavy rain fallen generally during the night; heaviest at Lobethral, 1·25 inch; on the coast, from 0·07 to 0·26 inch. Extremes of barometers and temperature: On the coast—Eucla, 29·93; M'Donnell Bay, 29·31 and 51°; Port Augusta, 67°. In North Territory—Daly Waters, 29·86; Port Darwin, 29·82, and 86°.

Victoria.—Fine in east, showery in extreme west parts, with light N. to N.W. winds, fallen barometers, and moderate sea. Equally at Melbourne and Ballarat. Rainfall: Cape Schanck, 0·97; Ballarat, 0·37; Cape Otway, 0·48; Wilson's Promontory, 0·33; Melbourne, 0·43; Portland, 0·14; and Horsham, 0·07. Extremes of barometers and temperature: Lakes' Entrance, 29·83; Hamilton, 29·35 and 50°: Omeo, 60°.

Tasmania.—In north parts fine, on the east coast cloudy, with light rain falling at Falmouth, light N. to W. winds, fallen barometers, and rough to moderate sea. Rainfall: Circular Heads, 0·66; Falmouth, 0·33; Hobart, 0·12; Southport, 0·15; and Low Heads, 0·05. Extremes of barometers and temperature: Southport, 29·62; Falmouth, 29·53; Hobart, 51°; and Circular Heads, 57°.

New Zealand.—In north parts, showery and gloomy, with N.W. winds; in extreme south, passing showers, and E. wind. Rainfall at Wellington, 0·20 inch. Barometers: Russell, 29·8; Wellington, 29·6; and Bluff, 29·5.

Queensland.—Generally fine, with light variable winds and calms, fallen barometers, and smooth sea. Rainfall: Brisbane, 0·10; Cape Moreton, 0·07. Extremes of barometers and temperature: Cooktown, 30·00 and 92°; Townsville, 29·67; and Cape Morston, 69°.

New South Wales.—Generally fine and warm, with clouds in scattered places, light N.W. to W. winds, fallen barometers, and smooth sea. During the last 24 hours light rain has fallen on and near the ranges, principally along the western slope, and heaviest in south. Rivers are rising. Extremes of barometers and temperature at 9 a.m.: Menindie, 29·85; Eden, 29·56; Lismore, 74°; and Kiandra, 45°. Reading of standard barometer at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m., 29·667. Extra stations: Lake Cudgellico, max. 74°, min. 42°, rainfall 0·45 and dull: Nowra, max. 71°, min. 51°, and hazy. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 34, showery, smooth sea; Cape Otway, N., 13, light rain, smooth sea, temperature 55°; Melbourne, N., 18, heavy showers, temperature, 61°; Cape Schanck, N., 25, fine but cloudy, moderate sea, temperature 57°; Wilson's Promontory, E., 13, cloudy, moderate sea, temperature 61°; Lakes' Entrance, N.E., 18, cloudy, temperature 66°.

New South Wales.—Menindie, W., 42, fine, temperature 69°; Wentworth, W., 1, cloudy, temperature 64°; Deniliquin, calm, cloudy, temperature 68°; Moruya, N.E., 24, fine, moderate sea, temperature 70°; Cape St. George, S.E., 28, fine, smooth sea, temperature 70°; Sydney, E., 14, fine but cloudy, smooth sea, temperature 70°; Newcastle, N.E., 1, fine, smooth sea, temperature 71°; Port Macquarie, N.E., 14, fine, smooth sea, temperature 75°; Clarence River, N.E., 1, fine, smooth sea, temperature 75°; Walgett, S.W., 1, cloudy and stormy, temperature 74°; Dubbo, calm, fine but cloudy, temperature 66°; Goulburn, N.N.W., dull, temperature 63°.

STATE OF RIVERS.

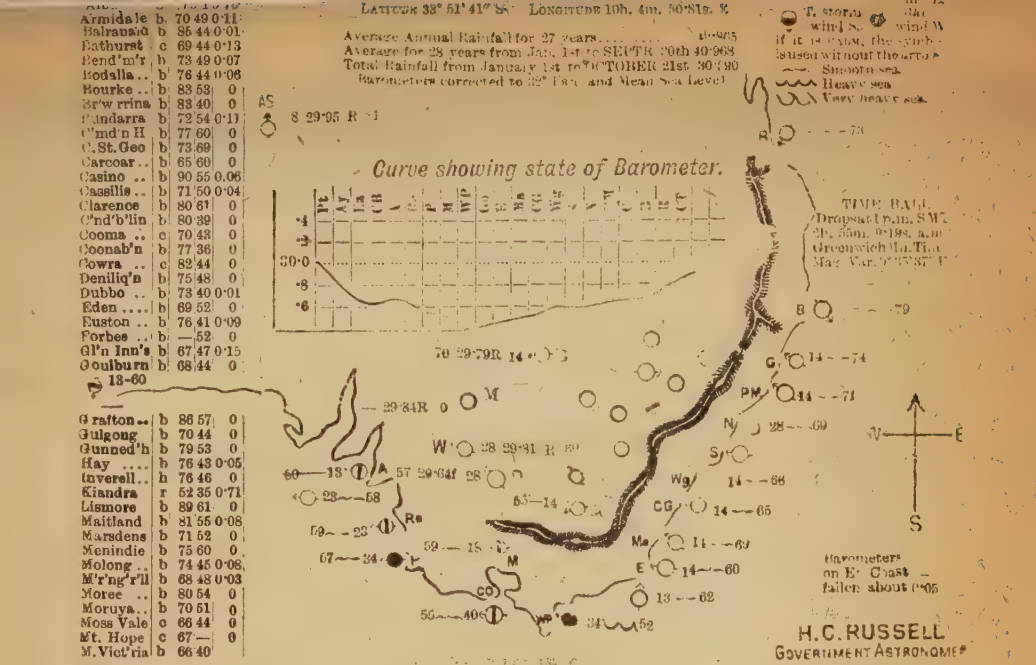
Macintyre: At Mungindi, 20 feet. Barwon: At Mogil Mogil, a banker; at Walgett, 27 feet. Namoi: At Walgett, 8 feet. Culgoa: At Goodooga, 8 feet 7 inches. Darling: At Brewarrina, 7 feet 6 inches; at Bourke, 17 feet 3 inches; at Louth, 18 feet; at Tilpa, 31 feet 10 inches; at Wilcannia, 34 feet 5 inches; at Menindie, 27 feet 10 inches; at Pooncarie, 32 feet 11 inches; at Wentworth, 16 feet 1 inch. Murrumbidgee: At Gundagai, 6 feet 3 inches; at Wagga, 6 feet; at Hay, 8 feet 8 inches; at Balranald, 14 feet 5 inches. Murray: At Albury, 3 feet; at Euston, 14 feet 1 inch.

ASTRONOMICAL MEMORANDA FOR OCTOBER 21.

Sun rises at 5.13, sets at 6.17; Moon rises 12.58 a.m., sets 11.22 p.m., Mercury, 5.52 a.m., 7.24 p.m.; Venus, 4.51 a.m., 5.23 p.m.; Mars, 7.33 a.m., 9.49 p.m.; Jupiter, 4.45 a.m., 5.30 p.m.; Saturn, 12.35 a.m., 10.37 p.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 21: 1.18 a.m., 1.47 p.m.

Armidale	b	70 49	0·11
Balranald	b	86 44	0·01
Bathurst	c	69 44	0·13
Bend'm'r	b	73 49	0·07
Bodalla ..	b	76 44	0·06
Bourke ..	b	83 53	0
Br'w'rrina	b	83 40	0
Bundarra	b	72 54	0·11
C'md'n H	b	77 60	0
C. St. Geo	b	73 69	0
Carcoar ..	b	65 60	0
Casino ..	b	90 55	0.06
Cassilis ..	b	71 50	0·04
Clarence	b	80 61	0
C'nd'b'lin	b	80 39	0
Cooma ..	c	70 43	0
Coonab'n	b	77 36	0
Cowra ..	c	82 44	0
Deniliq'n	b	75 48	0
Dubbo ..	b	73 40	0·01
Eden	b	69 52	0
Euston ..	b	76 41	0·09
Forbes ..	b	— 52	0
Gl'n Inn's	b	67 47	0·15
Goulburn	b	68 44	0
Grafton ..	b	86 57	0
Gulgong	b	70 44	0
Gunned'h	b	79 53	0
Hay	b	76 43	0·05
Inverell ..	h	76 46	0
Kiandra	r	52 35	0·71
Lismore	b	89 61	0
Maitland	b	81 55	0·08
Marsdens	b	71 52	0
Menindie	b	75 60	0
Molong ..	b	74 45	0·08
M'r'ng'r'll	b	68 48	0·03
Moree ..	b	80 54	0
Moruya ..	b	70 51	0
Moss Vale	c	66 44	0
Mt. Hope	c	67 —	0
M. Vict'ria	b	66 40	
Mudgee	b	74 38	0
M'rr'm'bh	c	68 50	0
M'rr'ndi	h	69 52	0·10
Mus'br'k	b	85 48	0·20
Narrabri	b	80 48	0
Newcastle	b	74 54	0
Orange ..	b	62 43	0·02
Picton ..	b	72 47	0·26
P. M'q'rie	b	77 56	0·03
P. St'ph'n	b	79 48	0·20
Q'nbeyan	b	66 49	0
Quirindi	b	80 48	0
Singleton	b	70 40	0
SYDNEY ..	b	72 54	0
Tamw'rth	b	76 51	0·12
Taralga ..	b	65 45	0
Taree	b	82 59	0·03
T'nt'rfield	b	78 69	0
Wagga ..	b	74 52	0·10
Walcha ..	b	68 47	0·06
Walgett ..	b	81 52	0
Warrah ..	b	75 46	0·29
W'ntw'rth	b	74 48	0
W'll'ng'ng	b	81 56	0
Young ..	b	75 45	0·10



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., t standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy, m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally unsettled, with S.E. to S.W. winds, fallen barometers, moderate sea, squally and showery at Esperance Bay, 0·31 inch rain fallen. Extremes of barometers and temperature: Geraldton, 30·09; Cossack, 29·67; Ashburton, 83°; and Perth, 56°.

South Australia.—Generally overcast and unsettled, with nice rains during the night, light N. to N.W. winds, fallen barometers, and smooth sea; on the coast squally and threatening. Rainfall: Mount Gambier, 0·73; M'Donnell Bay, 0·34; Robe, 0·22; Adelaide, 0·08; and Port Lincoln, 0·07. Extremes of barometers and temperature: On the coast—Port Augusta, 29·75; M'Donnell Bay, 29·50 and 57°; Eucla, 60°: in Northern Territory—Daly Waters, 29·86 and 92°; Port Darwin, 29·79 and 77°

Victoria.—Along the coast overcast and showery; inland fine but cloudy, with fresh N.W. to W. winds, risen barometers, and moderate to rough sea; squally and misty on the coast. Rainfall: Wilson's Promontory, 0·63; Echuca, 0·55; Ballarat, 0·44; Hamilton, 0·49; Melbourne, 0·36; Portland, 0·41; Cape Schanck, 0·26; and other stations below 0·25 inch. Extremes of barometers and temperature: Ballarat, 29·63 and 52°; Wilson's Promontory, 29·42; and Melbourne, 59°.

Tasmania.—Generally fine, with light S. to E. winds, fallen barometers, and moderate to rough sea. Rainfall: Falmouth, 0·67; Southport, 0·48; Low Heads, 0·30; Circular Heads, 0·20; and Hobart, 0·15. Extremes of barometers and temperature: Falmouth, 29·45 and 54°; Southport, 29·42 and 59°.

New Zealand.—Generally fine, with strong N.W. to W. winds. Passing showers at Bluff; 0·45 inch rain fallen at Wellington, and very high sea off Russell. Barometers: Russell, 29·8; Wellington, 29·5; and Bluff, 29·4.

New South Wales.—Generally fine and warm, with fresh north to west winds, almost steady barometers, and smooth sea. During the last 24 hours light rain has fallen along the range; heaviest at Kiandra, where nearly ¾ inch fell, and it was still showery at 9 a.m. Extremes of barometers and temperature: Menindie, 29·84; Eden, 29·47; Clarence, 74°; and Kiandra, 40°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29·619. Extra stations: Lake Cudgellico, max. 72°, min. 65°, calm and dull. For further particulars see map.

Queensland.—In north parts fine, sultry, and calm; in south fine, with S.E. to S.W. winds; sea smooth. Rainfall: Townsville, 0·30; and Rockhampton, 0·14 inches. Extremes of barometers and temperature: Cooktown, 30·00 and 91°; Townsville, 29·70; and Cape Moreton, 70°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 23, passing showers, smooth sea, temperature 65°; Cape Otway, N.W., 28, fine but cloudy, moderate sea, temperature 61°; Melbourne, N., passing showers, temperature, 60°; Cape Schanck, W.N.W., 13, passing showers, moderate sea, temperature 58°; Wilson's Promontory, W., 28, fierce squalls, moderate sea, temperature 59°; Lakes' Entrance, N.W., 13, fine but cloudy, temperature 66°.

New South Wales.—Menindie, W., 28, fine, temperature 69°; Wentworth, calm, fine temperature 64°; Deniliquin, N., 14, fine but cloudy, temperature 64°; Eden, S.E., 14, fine, smooth sea, temperature 61°; Moruya, E.N.E., 14, fine but cloudy, smooth sea, temperature 73°; Cape St. George, W., 42, fine, smooth sea, temperature 70°; Sydney, W.N.W., 25, fine and warm, smooth sea, temperature 74°; Newcastle, W., 1, fine, smooth sea, temperature 76°; Port Macquarie, N.N.E., 28, fine, smooth sea, temperature 78°; Clarence River, N.E., 1, fine, smooth sea, temperature 76°; Walgett, N.W., 1, fine, temperature 65°; Dubbo, W., 28, fine, temperature 66°; Goulburn, W., 2, fine, temperature 62°.

STATE OF RIVERS.

Macintyre: At Mungindi, 24 feet. Barwon: At Mogil Mogil, a banker; at Walgett, 28 feet 4 inches. Namoi: At Walgett, 9 feet 6 inches. Culgoa: At Goodooga, 9 feet. Darling: At Brewarrina, 8 feet 6 inches; at Bourke, 18 feet 3 inches; at Louth, 17 feet; at Tilpa, 30 feet 5 inches; at Wilcannia, 34 feet 4 inches; at Menindie, 27 feet 11 inches; at Pooncarie, 22 feet 11 inches; at Wentworth, 16 feet 2 inches. Murrumbidgee: At Gundagai, 6 feet 9 inches; at Wagga, 5 feet 8 inches; at Hay, 7 feet 6 inches; at Balranald, 14 feet 3 inches. Murray: At Albury, 5 feet; at Euston, 14 feet 5 inches.

ASTRONOMICAL MEMORANDA FOR OCTOBER 22.

Sun rises at 5.12, sets at 6.17; Moon, 1.47 a.m., 12.25 p.m.; Mercury, 5.52 a.m., 7.28 p.m.; Venus, 4.50 a.m., 5.25 p.m.; Mars, 7.32 a.m., 9.49 p.m.; Jupiter, 4.19 a.m., 5.27 p.m., Saturn, 12.31 a.m., 10.33 a.m. Full Moon, 13th; New Moon, 27th.

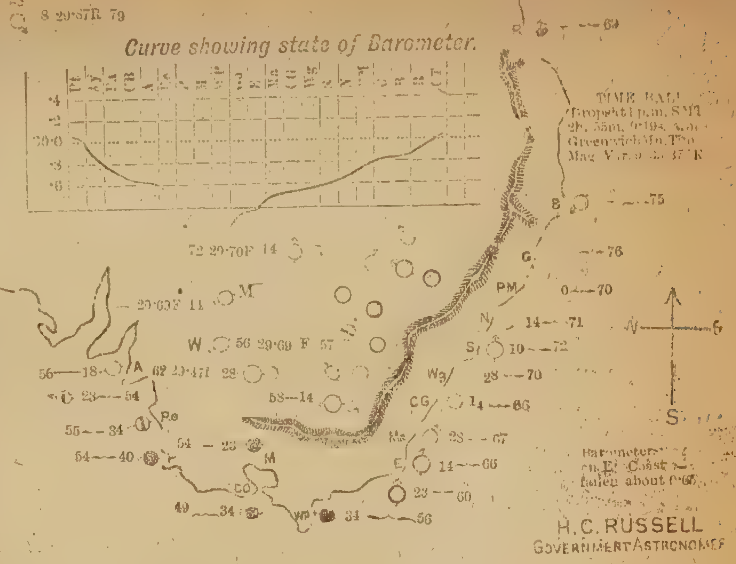
High water at Port Denison, October 22: 2.25 a.m., 3.3 p.m.

LATITUDE 33° 51' 41" S   LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years ...
Average for 28 years from Jan. 1st to SEPT'R 30th 40·908
Total Rainfall from January 1st to OCTOBER 22 30·601
Barometers corrected to 32° Fahr. and Mean Sea Level

T. storm   Rain
... is used without the ...
Smooth sea.
Heavy sea.
Very heavy sea.

Armidale	b	72	50	0·19
Balranald	b	88	47	0
Bathurst	b	64	43	0
Bend'm'r	b	68	38	0
Bodalla ..	b	90	53	0
Bourke ..	b	7	45	0
Br'w'rrina	b	85	60	0
Bundarra	b	8	36	0
C'md'n H	b	70	51	0
C.St.Geo	b	77	58	0
Carcoar .	b	77	62	0
Casino ..	b	85	51	0
Cassilis .	b	85	51	0
Clarence	b	69	52	0
C'nd'b'lln	c	84	61	0
Cooma ..	b	78	47	0
Coonab'n	b	70	44	0
Cowra ..	g	74	26	0
Deniliq'n	g	80	41	0
Dubbo ..	b	73	47	0
Eden	b	74	41	0
Euston ..	b	69	53	0
Forbes ..	b	92	54	0
Gl'n Inn's	b	—	54	0
Goulburn	b	67	45	0
		13·55		
Grafton ..	b	88	54	0
Gulgong	b	71	46	0
Gunned'h	b	77	49	0
Hay	b	77	43	0
Inverell ..	b	72	45	0
Kiandra	c	57	35	0·17
Lismore	b	86	56	0
Maitland	b	78	52	0
Marsdens	u	70	51	0
Menindie	b	77	63	0
Molong ..	b	73	39	0
M'r'ng'r'll	c	77	46	0
Moree ..	b	80	59	0
Moruya ..	b	77	51	0
Moss Vale	b	64	47	0
Mt. Hope	b	70	—	0
M. Vict'ria	b	63	41	0
Mudgee	b	73	32	0
M'rr'm'bh	c	74	47	0
M'rr'r'ndi	b	69	54	0
Mus'b'r'k	b	79	45	0
Narrabri	b	80	60	0
Newcastle	b	77	58	0
Orange ..	b	62	38	0
Picton ..	b	72	44	0
P. M'q'rie	b	78	51	0
P. St'ph'n	b	76	52	0
Q'nbeyan	b	57	44	0
Quirindi	b	78	50	0
Singleton	b	75	58	0
SYDNEY ..	h	75	55	0
Tamw'rth	b	72	46	0
Taralga ..	b	65	40	0
Taree	b	82	59	0
T'nt'rfield	b	78	66	0
Wagga ..	g	71	48	0
Walcha ..	b	64	40	0
Walgett ..	b	81	52	0
Warrah ..	b	75	48	0
W'ntw'rth	b	70	48	0
W'll'ng'ng	b	78	52	0
Young ..	g	75	41	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally unsettled, with light S.E. to S.W. winds, risen barometers, and smooth sea. Strong wind in squalls from south, and threatening rain at Carnarvon. Rough sea and 0·10 inch rain fallen at Esperance Bay. Extremes of barometers and temperature: Perth, 30·10 and 51°; Cossack, 29·69; and Carnarvon, 69°.

South Australia.—Generally overcast and unsettled, with fresh S. to W. winds, almost steady barometers, and moderate sea. Thunder and lightning during the rain generally. The heaviest rain fell at Mount Gambier, 1·08 inch. Several stations had above 0·70 inch. On the coast the winds are rather strong and squally. Extremes of barometers and temperature: On the coast—Eucla, 29·90; M'Donnell Bay, 29·36 and 53°; Streaky Bay, 59°.

Victoria.—Showery throughout (except on the N. S. Wales border, where it is fine), with fresh N.W. to W. winds, low barometers, and moderate sea. Squally on the coast, barometer rising in places west of Melbourne. Rainfall: Portland, 0·79; Cape Otway, 0·72; at all other stations, less than ½ inch. Extremes of barometers and temperature: Ballarat, 30·53, and 40°; Wilson's Promontory, 30·21; and Lakes Entrance, 61°.

Tasmania.—Raining throughout, with light northerly winds and calm, very low barometers, and moderate sea. Rainfall, from 0·14 to 0·28 inch generally. Extremes of barometers and temperature: Falmouth, 29·23, and 54°; Hobart, 29·12, and 51°.

New Zealand.—Generally unsettled, with N.E. to N.W. winds and low barometers, showery on the N.W. coast. Barometers generally, 29·5 inches.

New South Wales.—Generally fine, clear, and warm, with light north to west winds, fallen barometers, and smooth sea. In extreme S.W. parts gloomy and stormy, and sprinkling rain at Albury. Light rain has fallen during the night at a few scattered places along the Victorian border. Extremes of barometers and temperature at 9 a.m.: Port Macquarie, 29·71; Gabo Island, 29·42; Clarence, 76°; and Kiandra, 48°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29·603. Extra stations: Lake Cudgellico, max. 76°, min. 49°, and fine; Gabo Island, rainfall 0·01 inch. For further particulars see map.

Queensland.—In north parts fine and sultry, in south fine and clear; at Rockhampton, showery; winds westerly; sea smooth to moderate. Extremes of barometers and temperature: Cooktown, 30·02 and 92°; Townsville, 29·77; and Cape Moreton, 69°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 56, squally, with hail, smooth sea, temperature 53°; Cape Otway, W.N.W., 48, squally and gloomy, rough sea, temperature 56°; Melbourne, W.N.W., 18, passing showers, temperature 66°; Cape Schanck, W., 23, showery, squally, rough sea, temperature 56°; Wilson's Promontory, W., 34, squally and misty, rough sea, temperature 58°; Lakes Entrance, W., 28, thund r-storm, temperature ...

New South Wales.—Menindie, W.S.W., 28, fine, temperature ...; Wentworth, W., 28, fine and clear, temperature 63°; Deniliquin, W. fine, temperature 68°; Eden, N.N.W., 42, fine, smooth sea, temperature 78°; Moruya, N.W., 42, threatening, smooth sea, temperature 79°; Cape St. George, N., 42, ... a storm, smooth sea, temperature 71°; Sydney, N.W., 22, hot wind blowing, smooth sea, temperature 82°; Newcastle, N.W., 12, fine, smooth sea, temperature 80°; Port Macquarie, N.N.E., 42, fine, smooth sea, temperature 77°; Clarence River, N.E., 28, fine, smooth sea, temperature 78°; Dubbo, N.W., ..., fine and squally, temperature 74°; Goulburn, N.W., 28, dull, temperature 67°.

STATE OF RIVERS.

Macintyre: At Mungindi, over banks. Barwon: At Mogil Mogil, over banks; at Walgett, 29 feet 10 inches. Namoi: 11 feet. Culgoa: At Goodooga, 9 feet 6 inches. Darling: At Brewarrina, 9 feet 6 inches; at Bourke, 18 feet 4 inches; at Louth, 16 feet 2 inches; at Tilpa, 29 feet; at Wilcannia, 34 feet 4 inches; at Menindie, 27 feet 11 inches; at Pooncarie, 23 feet; at Wentworth, 16 feet 2 inches. Murrumbidgee: At Gundagai, 7 feet; at Wagga, 6 feet; at Hay, 7 feet; at Balranald, 14 feet. Murray: At Albury, 5 feet 10 inches; at Euston, 14 feet 1 inch.

ASTRONOMICAL MEMORANDA FOR OCTOBER 23.

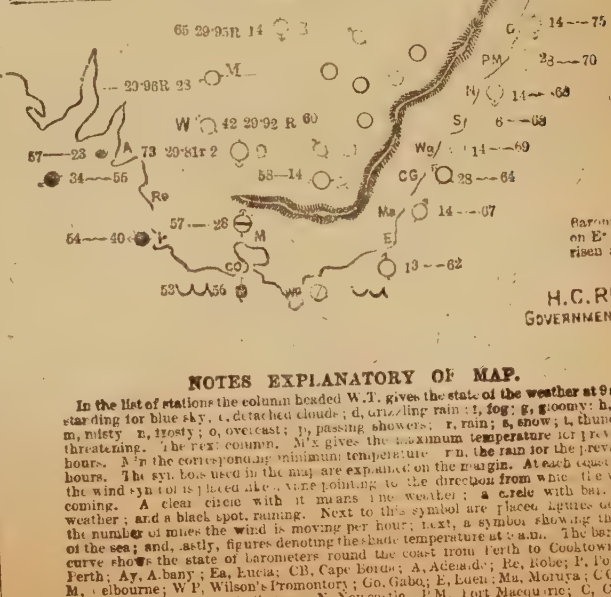
Sun rises at 5.11, sets at 6.18; Moon, 2.32 a.m., 1.30 p.m.; Mercury, 5.52 a.m., 7.31 p.m.; Venus, 4.49 a.m., 5.27 p.m.; Mars, 7.31 a.m., 9.48 p.m.; Jupiter, 4.45 a.m., 5.24 p.m.; Saturn, 12.27 a.m., 10.29 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 23: 3.44 a.m., 4.25 p.m.

Armidale	b	68	42	0
Balranald	b	85	41	0
Bathurst	b	75	35	0
Bend'm'r	g	75	51	0·09
Bodalla	b	82	43	0
Bourke	b	93	55	0
Br'w rrina	c	94	46	0
Bundarra	b	76	59	0·20
C'md'n H	b	80	60	0
C. St. Geo	b	82	60	0
Carcoar	n	69	32	0
Casino	b	90	59	0
Cassilis	b	75	49	0·14
Clarence	b	85	61	0
C'nd'b'lin	b	86	51	0
Cooma	b	70	38	0·02
Coonab'n	b	83	29	0·14
Cowra	b	79	39	0
Deniliq'n	b	76	39	0
Dubbo	b	84	38	0
Eden	—	—	—	—
Euston	b	82	47	0
Forbes	b	—	49	0
Gl'n Inn's	b	78	54	0·16
Goulburn	b	76	39	0·01
Grafton	b	90	61	0
Gulgong	b	71	43	0
Gunned'h	b	84	53	0·12
Hay	b	76	43	0
Inverell	b	77	55	0
Kiandra	c	50	32	0·17
Lismore	b	90	62	0
Maitland	b	84	55	0
Marsdens	b	71	48	0
Menindie	b	71	56	0
Molong	b	72	40	0
M'r'ng'r'll	b	78	41	0
Moree	b	83	51	0
Moruya	b	81	47	0
Moss Vale	b	73	44	0·01
Mt. Hope	b	74	—	0
M. Vict'ria	b	72	42	0
Mudgee	b	78	37	0
M'r'm'bh	b	71	41	0
M'rr'mdi	b	75	52	0.23
Mu'll'rk	b	84	44	0
Narrabri	b	83	46	0·28
Newcastle	b	83	60	0
Orange	b	63	36	0
Picton	b	80	45	0
P. M'q'rie	b	77	56	0
P. St'ph'n	b	92	58	0
Q'nbeyan	b	69	46	0
Quirindi	b	83	50	0
Singleton	b	78	56	0·10
Sydney	h	83	56	0·09
Tamw'rth	—	—	—	—
Taralga	b	72	41	0
Taree	b	88	62	0·01
T'nt'rfield	b	77	69	0·16
Wagga	b	73	41	0
Walcha	b	72	40	0·09
Walgett	b	91	56	0
Warrah	b	78	47	0·10
W'ntw'rth	b	72	47	0
W'll'ng'ng	b	86	51	0
Young	b	79	35	0

Average annual Rainfall for [illegible]
Average for 28 years from Jan. 1st to SEPTR. 30th 30·45
Total Rainfall from January 1st to SEPTR. 30th 30·83
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.



TIME BALL
Dropped from [illegible]
9h. 55m. 9·19s. a.m.
Greenwich Mean Time
Mar. Var. [illegible]

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x, gives the maximum temperature for previous 24 hours. Min the corresponding minimum temperature; rm, the rain for the previous 24 hours. The syn. lines used in the map are explained on the margin. At each observation the wind symbols placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Co, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

H.C. RUSSELL
GOVERNMENT ASTRONOMER

Western Australia.—At Esperance Bay misty, rain, with light S.W. wind and smooth sea. Barometer, 30·14; temperature, 59°; and rainfall, 0·01 inch.

South Australia.—Generally overcast and threatening, with strong W. to W.S.W. winds, risen barometers, and moderate sea; showery and squally on the coast. In south parts light rains have fallen during the night; heaviest over Mount Lofty Ranges, where from 0·77 to 1·30 inch fell. Extremes of barometers and temperature:—On the coast: Eucla 30·08; Macdonnell Bay, 29·45 and 54°; Port Augusta, 61°. In Northern Territory: Daly Waters, 29·92 and 96°; Port Darwin, 29·87 and 88°.

Victoria.—Showery on the coast, overcast and cloudy inland, with strong N. to W. winds, risen barometers, and rough sea. Fierce squalls on the coast. Rainfall generally less than 0·25 inch. Extremes of barometers and temperature: Omeo, 29·61; Wilson's Promontory, 29·41; Hamilton, 48°; and Horsham, 56°.

Tasmania.—Generally unsettled, with strong N. to N.W. winds, low and steady barometers, and moderate to rough sea, showery and squally on the north coast. Rainfall, generally from 0·14 to 0·47 inch. Extremes of barometers and temperature: Low Heads, 29·37; Southport 29·17, and 58°; Circular Head, 48°.

New Zealand.—Passing showers from S.W., and squally in extreme north; unsettled, with variable winds in south. Barometers: Russell, 29·3; Wellington and Bluff, 29·6.

New South Wales.—Generally fine and warm, with light N.W. to S.W. winds, rising barometers, and smooth sea. Light rain has fallen along the range, principally on the western slope, and heaviest in north. During the night thunderstorms occurred at Sydney and Lismore. Extremes of barometers and temperature at 9 a.m.: Menindie, 29·95; Gabo Island, 29·56; Clarence, 75°; and Kiandra, 45°. Reading of standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29·755. Extra stations: Hill End, rainfall 0·03 inch; Lake Cudgellico, max. 76°, min. 47°, fine and warm. Maximum temperature in the sun at Sydney during the last 24 hours, 134°. For further particulars see map.

Queensland.—In south parts cloudy, with variable winds and moderate sea. Rockhampton, 0·07 inch rain. No reports from north parts.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 60, fierce squalls of wind, high sea, temperature 53°; Cape Otway, N.W., 48, showery, high sea, temperature 50°; Melbourne, no telegrams; Wilson's Promontory, W., 56, squally and misty, rough sea, temperature 52°. Violent westerly gale on the coast of Victoria.

New South Wales.—Menindie, W., 40, fine; Deniliquin, N.W., 28, like rain, temperature 63°; Eden, N.E., 28, fine, smooth sea, temperature 65°; Moruya, N.W., 28, fine, smooth sea, temperature 73°; Cape St. George, W.N.W., 40, fine, smooth sea, temperature 69°; Sydney, N.E., 20, fine, smooth sea, temperature 70°; Port Macquarie, S.E., 28, sultry smooth sea, temperature 77°; Clarence River, S.E., 20, fine, smooth sea, temperature 73°; Dubbo, W., 14, fine, temperature 69°; Goulburn, N.W., fine, temperature 62°.

Sunday was a very windy and squally day in Sydney; about sunset heavy clouds like rain clouds came up from S.W., and a few drops of rain fell. At 6.30 p.m. a very violent squall passed over the city, in which for a few minutes the wind reached a velocity of 73 miles per hour.

STATE OF RIVERS.

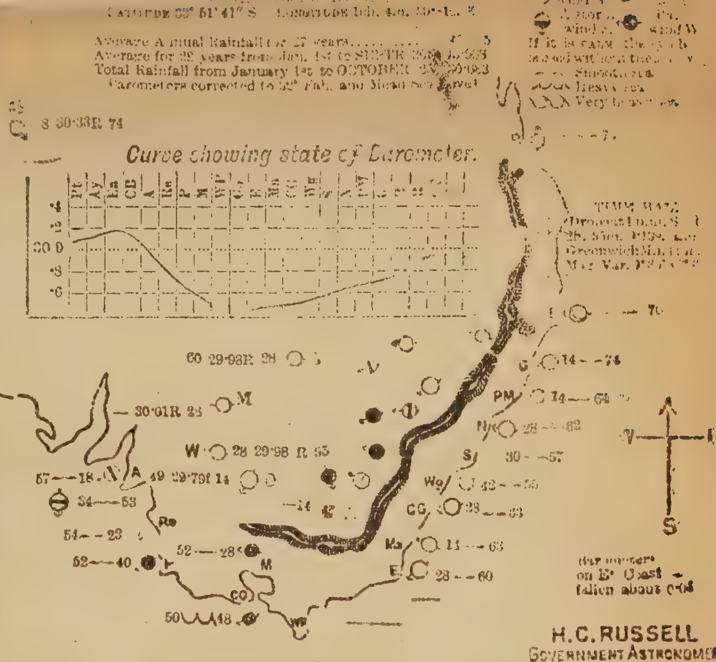
Macintyre: At Mungindi, 29 feet. Barwon: At Mogil Mogil, over banks; at Walgett, 31 feet. Namoi: 12 feet 2 inches. Culgoa: At Goodooga, 9 feet 10 inches. Darling: At Brewarrina, 10 feet 6 inches; at Bourke, 19 feet 2 inches; at Louth, 16 feet 8 inches; at Tilpa, 28 feet 10 inches; at Wilcannia, 34 feet 2 inches; at Menindie, 28 feet; at Pooncarie, 23 feet; at Wentworth, 11 feet 2 inches. Murrumbidgee: At Gundagai, 7 feet; at Wagga, 6 feet; at Hay, 6 feet 9 inches; at Balranald, 14 feet. Murray: At Albury, 5 feet 8 inches; at Euston, 14 feet 1 inch.

ASTRONOMICAL MEMORANDA FOR OCTOBER 25.

Sun rises at 5.9, sets at 6.20; Moon, 3.56 a.m., 3.44 p.m.; Mercury, 5.53 a.m., 7.38 p.m.; Venus, 4.48 a.m., 5.31 p.m.; Mars, 7.28 a.m., 9.47 p.m.; Jupiter, 4.38 a.m., 5.18 p.m.; Saturn, 12.19 a.m., 10.21 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 25: 6.13 a.m., 6.44 p.m.

Albury	r	65	42	0·94
Armidale	b	71	45	0
Balranald	b	78	39	0·08
Bathurst	u	65	37	0·13
Bend'm'r	c	70	43	0
Bodalla..	b	80	41	0
Bourke ..	b	74	51	0
Br'w'rrina	-	—	—	-
Bundarra	b	71	49	0
C'md'n H	b	78	57	0
C.St.Geo	b	66	60	0
Carcoar..	r	62	33	0·23
Casino ..	b	86	49	0
Cassilis..	c	67	47	0
Clarence	b	85	61	0
C'nd'b'lin	c	71	31	0
Cooma ..	g	57	34	0·25
Coonab'n	b	70	26	0
Cowra ..	r	79	39	0
Deniliq'n	b	86	37	0·27
Dubbo ..	b	67	36	0
Eden	b	69	48	0
Euston ..	b	63	41	0·06
Forbes ..	u	—	44	0
Gl'n Inn's	b	72	43	0
Goulburn	b	54	35	0.48
Grafton..	b	88	57	0
Gulgong	c	70	39	0
Gunned'h	c	84	44	0
Hay	b	74	43	0·07
Inverell..	b	73	42	0
Kiandra	s	54	25	0
Lismore	b	86	55	0
Maitland	b	78	51	0
Marsdens	c	71	42	0·07
Menindie	g	65	58	0
Molong ..	r	64	35	0·23
M'r'ng'r'll	r	57	44	0·32
Moree ..	b	73	54	0
Moruya..	b	70	49	0
Moss Vale	b	57	40	0·12
Mt. Hope	g	72	—	0
M.Vict'ria	s	66	33	0·07
Mudgee	b	73	31	0
M'rr'm'bh	c	70	42	0·52
M'rr'ndi	c	66	47	0
Mus'lbr'k	u	81	42	0
Narrabri	b	73	44	0
Newcastle	b	77	49	0
Orange ..	s	54	34	0·30
Picton ..	b	63	46	0·06
P. M'q'rie	b	77	47	0
P. St'ph'n	b	79	53	0
Q'nbeyan	b	64	40	0·30
Quirindi	g	77	44	0
Singleton	b	72	58	0
Sydney ..	b	68	52	0
Tamw'rth	u	71	44	0
Taralga ..	b	64	34	0·64
Taree	b	83	53	0·01
T'nt'rfield	b	77	48	0
Wagga ..	r	72	40	0·60
Walcha ..	b	77	37	0·03
Walgett..	b	76	50	0
Warrah ..	b	75	44	0
W'ntw'rth	b	64	46	0·07
W'll'ng'ng	b	69	50	0
Young ..	r	63	38	0·34



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; R'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light variable winds and calms, fallen barometers, and smooth sea. Extremes of barometer and temperature: **Albany,** 30·12; Carnarvon, 29·74; **Cossack, 29·79; and Esperance Bay, 55°.**

South Australia.—Generally cloudy and unsettled, with light rain in places, strong S.W. to S. winds, risen barometers, and moderate sea. Rain has fallen generally; several places on the **ranges have had over an inch, and in north parts nearly an inch at some places; squally on the coast. Extremes of barometers and temperature:—On the coast:** Eucla, 30·20; Macdonnell Bay, **29·67 and 51°; Port Augusta, 65°. In Northern Territory:** Daly **Waters, 30·00 and 79°; Port Darwin,** 29·83 and 77°.

Victoria.—On the coast passing showers, squally, and rough sea; inland, overcast and cold; winds generally are strong, from **W.N.W. to W.S.W.; and barometers have risen.** Rainfall: Cape **Schanck, 0·86;** Portland, 0·65; Hamilton, 0·58; Ballarat and **Omeo, 0·40; Cape Otway, 0·39; and other stations** lesser quantities. **Extremes of barometers and temperature:** Horsham, 29·74; **Lake's Entrance, 29·48 and 53°;** Ballarat, 40°.

Tasmania.—Generally fine, but cloudy and unsettled, with fresh N.W. to S.W. winds; low and steady barometers, and moderate to rough sea. Rainfall: Circular Heads, 0·29; Low Heads, 0·02; and Hobart, 0·03. Extremes of barometers and temperature: **Circular Heads, 29·30 and 50°;** Hobart, 29·14 and 54°.

New Zealand.—Generally fine; on North Island, strong N.W. to W. winds; in extreme south calm; yesterday generally heavy showers, and strong wind **in squalls from N.W.** Barometers: Russell, 29·9; **Gisborne, 29·7; Wellington, 29·6; and Bluff, 29·5.**

New South Wales.—In north parts fine; in south unsettled, with cloudy and showery weather on and near the range, especially on the western slope. Snow fell yesterday at Moss Vale and Carcoar, and during the night at Mount Victoria. This morning it was snowing at Kiandra and Orange, there being 18 inches on the ground at the former place. Light rain has fallen in South parts, having been heaviest at Albury, where nearly an inch fell. Winds are strong generally, blowing from S.W. to N.W.; **barometers are almost steady on the coast, but** have risen slightly in west parts. The sea is smooth. Extra stations:—Brewarrina, max. 65°, min. 36°, and fine; Lake Cudgellico, max. 57°, min. 45°, cloudy and cold. **For further particulars see map.**

Queensland.—Generally fine: **in south parts N. to W. winds,** and moderate sea; in north calm, sultry, and smooth sea. Extremes of barometers and temperature: **Cooktown,** 29·98 and 90°; Cape Moreton, 29·78 and 67°.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, N., 48, passing showers, squally, high sea, temperature 50°; Melbourne, W., 28, passing showers and squally, temperature 57°; Cape Schanck, S.S.W., 28, squally and misty, rough sea, temperature 52°; Wilson's Promontory, W., 34, showery and squally, rough sea, temperature 49°; Lake's Entrance, W., 23, gloomy and squally, temperature 58°.

New South Wales.—Menindie, W., 28, fine, temperature 64°; Wentworth, N.W., 28, dull and threatening, temperature 57°; Deniliquin, calm, 28, dull and cold, temperature 60°; Eden, N.W., 14, fine, smooth sea, temperature 65°; Moruya, W.N.W., 42, fresh gale, cloudy, smooth sea, temperature 66°; Cape St. George, W., 56, fine, smooth sea, temperature 72°; Sydney, W., 36, fine, squally, smooth sea, temperature 64°; Newcastle, W., 28, fine, smooth sea, temperature 67°; Port Macquarie, W., 42, fine, smooth sea, temperature 74°; Dubbo, W., 14, fine, temperature 61°; Goulburn, N.W., fine and cold, temperature 53°.

STATE OF RIVERS.

Macintyre: At Mungindi, 28 feet 9 inches. Barwon: At Mogil Mogil, over banks and rising; at Walgett, 33 feet. Namoi: 15 feet. Culgoa: At Goodooga, 10 feet 4 inches. Darling: At Brewarrina, 13 feet; at Bourke, 20 feet 1 inch; at Louth, 47 feet 1 inch; at Tilpa, 25 feet; at Wilcannia, 33 feet 11 inches; at Menindie, 28 feet 1 inch; at Pooncarie, 23 feet 1 inch; at Wentworth, 16 feet 3 inches. Murrumbidgee: At Gundagai, 7 feet; at Wagga, 6 feet; at Hay, 6 feet 6 inches; at Balranald, 13 feet 11 inches. Murray: At Albury, 6 feet 2 inches; at Euston, 13 feet 10 inches.

ASTRONOMICAL MEMORANDA FOR OCTOBER 26.

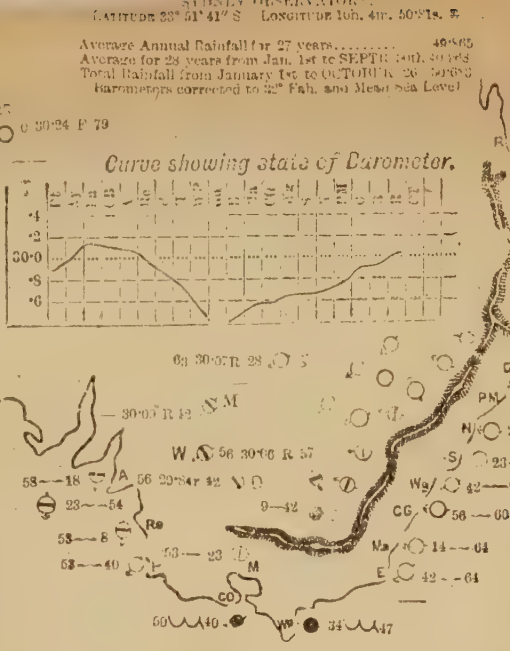
Sun rises at 5.8, sets at 6.21; Moon, 4.37 a.m., 4.51 p.m.; Mercury, 5.53 a.m., 7.42 p.m.; Venus, 4.47 a.m., 5.33 p.m.; Mars, 7.27 a.m., 9.47 p.m.; Jupiter, 4.35 a.m., 5.15 p.m.; Saturn, 12.15 a.m., 10.17 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 26: **7.10 a.m., 7.35 p.m.**

Albury	r	56	46	0·08
Armidale	b	61	45	0
Balranald	g	72	46	0
Bathurst	c	52	42	0
Bend'm'r	b	68	44	0
Bodalla..	b	70	42	0
Bourke ..	b	74	49	0
Brw'rrina	b	72	35	0
Bundarra	b	64	47	0
C'md'n H	b	71	48	0
C.St.Geo	b	67	55	0
Carcoar .	g	52	35	0·04
Casino ..	b	60	41	0
Cassilis .	c	62	50	0
Clarence	b	83	58	0
C'nd'b'lin	c	78	35	0
Cooma ..	c	59	37	0
Coonab'n	b	65	36	0
Cowra ..	u	78	37	0·03
Deniliq'n	b	65	47	0
Dubbo ..	b	65	40	0
Eden	b	69	47	0
Euston ..	b	67	47	0
Forbes ..	u	—	—	0
Gl'n Inn's	c	66	33	0
Goulburn	b	53	40	0
Grafton..	b	81	51	0
Gulgong ..	b	62	43	0
Gunned'h	b	69	43	0
Hay	c	73	43	0
Inverell..	b	68	38	0
Kiandra .	S	43	28	0
Lismore .	b	79	51	0
Maitland	b	70	55	0
Marsdens	b	62	49	0
Menindie	g	68	55	0
Molong ..	c	60	40	0·03
M'r'ng'r'll	c	63	50	0·03
Moree	b	83	40	0
Moruya..	b	71	52	0
Moss Vale	b	53	45	0
Mt. Hope	g	60	—	0
M.Vict'ria	b	66	33	0
Mudgee	c	63	41	0
M'rr'mb'n	c	58	46	0
M'rr'mdi	b	61	49	0
Muswh'k	b	74	48	0
Narrabri	b	73	44	0
Newcastle	b	69	54	0
Orange ..	b	51	37	0
Picton ..	b	60	52	0
P. M'q'rie	b	76	43	0
P. St'ph'n	b	71	56	0
Q'nbevan	c	55	46	0
Quirindi	b	77	43	0
Singleton	b	65	56	0
Sydney ..	h	64	56	0
Tam'w'rth	b	64	49	0
Taralga ..	g	58	38	0
Taree	b	73	47	0·01
T'nt'rfield	b	64	46	0
Wagga ..	c	61	43	0·03
Walcha ..	b	76	34	0·01
Walgett..	b	72	51	0
Warrah ..	b	78	42	0
W'tntw'th	u	66	51	0·01
W'll'ng'ng	b	71	55	0
Young ..	u	60	45	0·02

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years..... 49·65
Average for 28 years from Jan. 1st to SEPT. 30th, 30 yrs. 30·63
Total Rainfall from January 1st to OCTOBER 26, 30·63
Barometers corrected to 32° Fah. and Mean Sea Level



Barometer on E. Coast rises about 0·06

H.C. RUSSELL.
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.1. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; rn, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometric curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Cape Byron; R, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the progress beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, clear, and warm, with light N. to W. winds and calms, fallen barometers, and smooth sea. Extremes of barometers and temperature: Esperance Bay, 29·91 and 56°; Cossack, 29·85; and Geraldton, 80°.

South Australia.—Generally fine, but cloudy, with fresh S. to S. W. winds slightly risen barometers, and moderate sea. Squally on the coast; light rain at places on and near the coast, principally on Mount Lofty ranges. Rainfall: Robe, 0·09; Adelaide, 0·10; M'Donald Bay and Cape Borda, 0·07. Extremes of barometers and temperature:—On the coast: Streaky Bay, 30·14; Macdonnell Bay, 29·88 and 51°; Port Augusta, 66°. In Northern Territory: Daly Waters, 30·05 and 72°; Port Darwin, 29·88 and 73°. Rainfall: Daly Waters, 0·17; Tennant's Creek, 0·03 inch.

Victoria.—Generally showery and cloudy, with strong squally W. to S.W. winds, risen barometers, and rough sea. Clearing in western parts. Rainfall: Cape Schanck, 0·52; Cape Otway, 0·50; Wilson's Promontory, 0·48; Lakes Entrance and Ballarat, 0·23; Hamilton, 0·17; Horsham, 0·07; Melbourne, 0·16; Portland, 0·15. Extremes of barometers and temperature: Horsham, 29·92; Wilson's Promontory, 29·47; Ballarat, 43°; and Echuca, 55°.

Tasmania.—Generally fine, but cloudy, with fresh westerly winds, slightly risen barometers, and moderate sea. Extremes of barometers and temperature: Low Heads, 29·40 and 53°; Fulmouth, 29·25 and 57°.

New Zealand.—Generally gloomy and cloudy, with strong N.W. to S.W. winds. Passing showers in extreme north. Rough sea on the west coast. Thunderstorm and heavy showers during the night at Wellington. Barometers: Russell, 29·7; Wellington, 29·5; and Bluff, 29·2.

New South Wales.—Generally fine and cool, with strong squally N.W. to S.W. winds, slightly risen barometers, and smooth sea; stormy, cloudy and threatening, with light rain falling, in extreme south and S.W. parts, the heaviest fall occurring at Albury, 0·08 inch, and still showery; snowing at Kiandra. Extremes of barometers and temperature at 9 a.m.: Clarence 29·91, Eden 29·44, Port Macquarie 68°, and Kiandra 35°; reading of standard barometer at Sydney, corrected to 32° Fah., and mean sea level, at 9 a.m., 29·660. For further particulars see map.

Queensland.—Generally fine, with S.E. to S.W. winds and moderate to rough sea. Extremes of barometers and temperature: Rockhampton 30·01, Townsville 29·74 and 84°, and Cape Moreton 64°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.S.W., 31, cloudy, smooth sea; temperature 55°; Cape Otway, S.W., 40, showery and squally, rough sea, temperature 53°; Melbourne, S.W., 8, passing showers, temperature 53°; Cape Schanck, S.S.W., 23, cloudy and misty, rough sea, temperature 55°; Wilson's Promontory, W.S.W., 40, heavy showers, squally, rough sea, temperature 51°; Lake's Entrance, W.S.W., 40, stormy, temperature 56°.

New South Wales.—Menindie, S.W., 14, fine, and cool, temperature 65°; Wentworth, S.W., 28, fine, temperature [illegible]; Deniliquin, W., 14, fine, and cool, temperature [illegible]; Eden, W.S.W., 42, fine, smooth sea, temperature 55°; Moruya, W.N.W., 42, fine, smooth sea, temperature 71°; Cape St. George, S.W., 42, fine, smooth sea, temperature 64°; Sydney, W., 32, fine, but cloudy, smooth sea, temperature 69°; Newcastle, W., 28, fine, smooth sea, temperature 75°; Port Macquarie, W.S.W., 28, fine, smooth sea, temperature 78°; Clarence River, N.W., 28, fine, smooth sea, temperature 78°; Wahroonga, S.W., fine and clear, temperature 74°; Dubbo, W.S.W., fine, temperature 63°; Goulburn, N.W., dull and cold, temperature 57°.

STATE OF RIVERS.

Macintyre: At Mungindi, 27 feet 6 inches. Barwon: At Walgett, Mogil, over banks; at Walgett, 34 feet. Namoi: [illegible] inches. Culgoa: At Goodooga, 10 feet 6 inches. Darling: At Brewarrina, 15 feet 3 inches; at Bourke, 21 feet; at Louth, 17 feet 7 inches; at Tilpa, 24 feet 2 inches; at Wilcannia, 20 feet 9 inches; at Menindie, 28 feet 1 inch; at Pooncarie, 23 feet 1 inch; at Wentworth, 16 feet 3 inches. Murrumbidgee: At Gundagai, 7 feet 6 inches; at Wagga, 5 feet 9 inches; at Hay, 6 feet 5 inches; at Balranald, 14 feet 3 inches. Murray: At Albury, 7 feet; at Euston, 13 feet 10 inches.

ASTRONOMICAL MEMORANDA FOR OCTOBER 27.

Sun rises at 5.7, sets at 6.22; Moon, 5.18 a.m., 4.58 p.m.; Mercury, 5.54 a.m., 7.45 p.m.; Venus, 4.46 a.m., 5.35 p.m.; Mars, 7.26 a.m., 9.46 p.m.; Jupiter, 4.31 a.m., 5.12 p.m.; Saturn, 12.11 a.m., 10.13 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 27: 7.58 a.m., 8.20 p.m.

Armidale	b	65 46	0
Balranald	b	76 41	0
Bathurst	b	58 33	0
Bend'm'r	b	68 48	0
Bodalla	b	73 38	0
Bourke	b	78 51	0
Br'w'rrina	b	79 37	0
Bundarra	b	68 48	0
C'md'n H	b	80 53	0
C. St. Geo	b	72 62	0
Carcoar	b	65 31	0
Casino	b	82 49	0
Casilis	b	66 46	0
Clarence	b	83 58	0
C'nd'b'lin	b	77 39	0
Cooma	n	62 30	0
Coonab'n	b	69 38	0
Cowra	b	78 38	0·02
Deniliq'n	b	69 34	0
Dubbo	b	70 35	0
Eden	h	66 52	0
Euston	b	72 35	0
Forbes	b	— 42	0
Gl'n Inn's	b	65 46	0
Goulburn	b	57 38	0
Grafton	b	85 57	0
Gulgong	b	67 41	0
Gunned'h	b	74 46	0
Hay	b	74 41	0
Inverell	b	71 40	0
Kiandra	b	55 30	0
Lismore	b	83 56	0
Maitland	h	76 54	0
Marsdens	b	68 58	0
Menindie	b	70 54	0
Molong	b	63 37	0
M'r'ng'r'll	b	64 38	0·02
Moree	b	83 51	0
Moruya	b	72 45	0
Moss Vale	b	56 44	0·01
Mt. Hope	b	65 —	0
M. Vict'ria	b	57 33	0
Mudgee	b	69 37	0
M'r'm'bh	b	60 38	0
M'r'r'ndi	b	66 44	0
Mus'lbr'k	h	76 34	0
Narrabri	b	79 46	0
Newcastle	h	78 52	0
Orange	b	57 38	0
Picton	h	67 49	0
P. M'q'rie	h	81 47	0
P. St'ph'n	b	77 51	0
Q'nbeyan	b	59 44	0
Quirindi	b	75 46	0
Singleton	b	72 55	0
Sydney	h	70 54	0
Tamw'rth	b	70 45	0
Taralga	b	69 37	0
Taree	b	80 52	0
T'nt'rfield	b	66 48	0
Wagga	b	64 37	0·07
Walcha	b	67 38	0
Walgett	b	76 73	0
Warrah	b	72 —	0
W'ntw'rth	b	71 44	0
W'll'ng'ng	b	70 55	0
Young	b	62 33	0·05

Average Annual Rainfall for 27 years..... 45·885
Average for 28 years from Jan. 1st to SEPTR 30th 40·293
Total Rainfall from January 1st to OCTOBER 27 30·883
Barometers corrected to 32° Fah. and Mean Sea Level

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; z, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometric curve shows the state of barometers round the coast from Perth to Cooktown: Pe, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, but cloudy, with light southerly winds, risen barometers, and smooth sea. Rainfall: 0·01 inch at Esperance Bay. Extremes of barometers and temperature: Perth, 30·11 and 64°; Cossack, 29·84 and 80°.

South Australia.—Generally fine, with light N. to N.E. winds, fallen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature:—On the coast: Robe, 30·15 and 44°; Eucla, 29·84 and 84°. In Northern Territory: Daly Waters, 30·11 and 76°; Port Darwin, 29·95 and 87°.

Victoria.—Generally fine but cloudy, with light S. to S.W. winds, risen barometers, and rough sea. Squally on the S.E. coast. Showery at Cape Schanck. Rainfall: Wilson's Promontory, 0·20; Melbourne, 0·17; Cape Schanck, 0·14; Cape Otway, 0·11; Lakes Entrance, 0·07; and Ballarat, 0·04 inch. Extremes of barometers and temperature: Horsham, 30·17 and 56°; Wilson's Promontory, 29·96; and Hamilton, 49°.

Tasmania.—Generally fine, but cloudy, with fresh S. to W. winds, risen barometers, and smooth sea. Showery at Southport, with rough sea off the heads. Rainfall: Southport, 0·50; Falmouth, 0·11; Circular Heads, 0·02. Extremes of barometers and temperature: Circular Heads, 30·00 and 51°; Falmouth, 29·82 and 58°.

New Zealand.—Generally fine, with fresh N.W. winds. Rough sea on the west coast. Barometers: Russell, 29·8; Wellington, 29·4; and Bluff, 29·3.

New South Wales.—Generally fine, clear, and cool, with light variable winds and calms, rising barometers and smooth sea: light rain has fallen at a few scattered places in south parts. At Kiandra the snow is thawing fast, and the rivers are rising generally. Extremes of barometers and temperature at 9 a.m.: Wentworth 30·28; Gabo Island, 29·83; Clarence, 76°; and Cooma, 44°. Reading of standard barometer at Sydney, corrected to 32° Fah., and mean sea level, at 9 a.m., 29·990. Extra stations: Gabo Island, showery, squally, and strong west wind; rainfall, 0·05; Lake Cudgellico, max. 66, min. 44, fine and warm. For further particulars see map.

Queensland.—In south parts fine, with S.E. to S.W. winds; in north cloudy and calm, sea moderate, showery from S.E., and 0·08 inch fallen at Cooktown. Extremes of barometers and temperature: Cooktown, 30·09 and 87°; Townsville, 29·77; and Cape Moreton 67°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 18, fine, smooth sea, temperature 56°; Cape Otway, W.S.W., 3, fine, moderate sea, temperature 56°; Melbourne, S.S.W., 8, fine but cloudy, temperature 58°; Cape Schanck, S.S.E., 8, fine, smooth sea, temperature 57°; Wilson's Promontory, W., 23, cloudy and squally, moderate sea, temperature 51°; Lakes Entrance, S.W., 23, fine but cloudy, temperature 59°.

New South Wales.—Menindie, calm, fine and clear, temperature 65°; Wentworth, W., 14, fine and clear, temperature 61°; Deniliquin, calm, fine, temperature 66°; Eden, S.W., 28, fine, smooth sea, temperature 64°; Moruya, S.E., 14, fine, smooth sea, temperature 69°; Cape St. George, S.E., 14, fine, smooth sea, temperature 64°; Sydney, S.E., 14, fine but hazy, smooth sea, temperature 65°; Newcastle, S.E., 14, fine, smooth sea, temperature 65°; Port Macquarie, L.S.E., 14, fine, smooth sea, temperature 65°; Clarence River, N.E., 28, fine, smooth sea, temperature 76°; Dubbo, S.W., 42, fine, temperature 65°; Goulburn, W., 11, fine, temperature 61°.

STATE OF RIVERS.

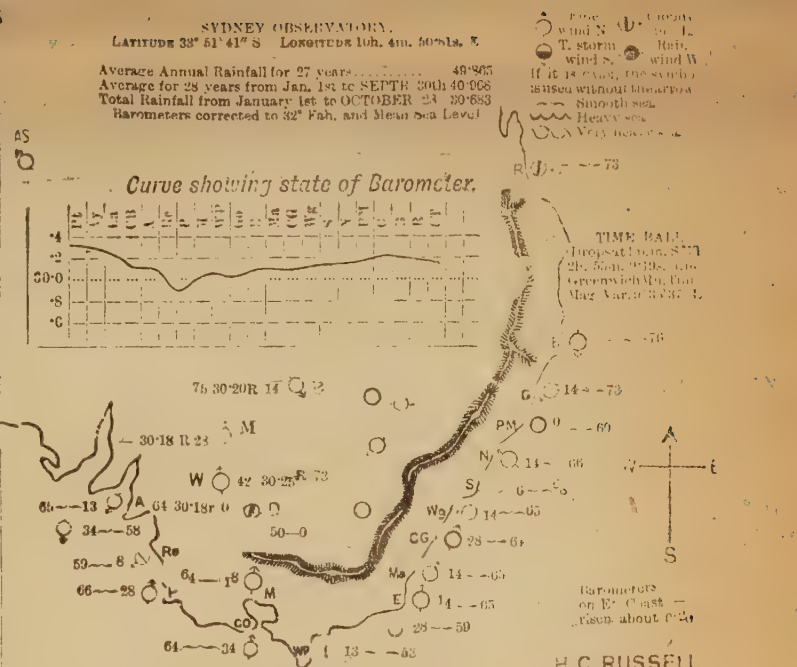
Macintyre: At Mungindi, 25 feet 6 inches. Barwon: At Mogil Mogil, over banks; at Walgett, 34 feet 10 inches. Namoi: At Walgett, 17 feet 6 inches. Culgoa: At Goodooga, 16 feet 7 inches. Darling: At Brewarrina, 16 feet 9 inches; at Bourke, 21 feet 8 inches; at Louth, 17 feet 10 inches; at Tilpa, 12 feet 2 inches; at Wilcannia, 33 feet 7 inches; at Menindie, 29 feet 2 inches; at Pooncarie, 23 feet; at Wentworth, 16 feet 3 inches. Murrumbidgee: At Gundagai, 8 feet; at Wagga, 5 feet 9 inches; at Hay, 6 feet 3 inches; at Balranald, 14 feet 3 inches. Murray: At Albury, 7 feet 6 inches; at Euston, 13 feet 10 inches.

ASTRONOMICAL MEMORANDA FOR OCTOBER 28.

Sun rises at 5.6, sets at 6.23; Moon, 6.37 a.m., 6.51 p.m.; Mercury, 5.53 a.m., 7.49 p.m.; Venus, 4.46 a.m., 5.15 p.m.; Mars, 7.24 a.m., 9.46 p.m.; Jupiter, 4.38 a.m., 5.10 p.m.; Saturn, 12.8 a.m., 10.10 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 28: 8.42 a.m., 9.1 p.m.

Stations	wt	Mx	mn	r'in
Albury	c	65	44	0
Armidale	b	69	43	0
Balranald	b	86	34	0
Bathurst	b	67	35	0
Bend'm'r	b	70	41	0
Bedulla ..	b	71	41	0
Bourke ..	b	84	54	0
Br'w'rrina	b	93	39	0
Bundarra	b,	71	50	0
C'md'n H	c	77	58	0
C. St. Geo	b	68	60	0
Carcoar ..	b	61	40	0
Casino ..	b	88	50	0
Cassilis ..	b	69	45	0
Clarence	b	85	58	0
C'nd'b'lin	b	80	36	0
Cooma ..	n	69	30	0
Coonab'n	b	76	37	0
Cowra ..	b	80	42	0
Deniliq'n	c	73	40	0
Dubbo ..	b	76	36	0
Eden	b	65	52	0
Euston ..	b,	83	45	0
Forbes ..	b	—	45	0
Gl'n Inn's	b	74	41	0
Goulburn	b	67	34	0
Grafton ..	b	87	58	0
Gulgong	b	71	43	0
Gunned'h	b	78	46	0
Hay	b	74	41	0
Inverell ..	b	72	43	0
Kiandra	c	59	24	0
Lismore	b	90	58	0
Maitland	b	79	50	0
Marsdens	b	73	49	0
Menindie	b	71	54	0
Molong ..	b	62	37	0
M'r'ng'r'll	b	70	30	0
Moree ..	b	84	48	0
Moruya ..	b	70	52	0
Moss Vale	b	65	44	0
Mt. Hope	b	70	—	0
M. Vict'ria	b	72	37	0
Mudgee	b	77	34	0
M'rr'm'bh	b	68	40	0
M'rr'r'ndi	b	70	47	0
Mus'll'br'k	b	80	42	0
Narrabri	b	80	48	0
Newcastle	b	76	56	0
Orange ..	b	61	35	0
Picton ..	b	63	40	0
P. M'q'rie	b	72	49	0
P. St'ph'n	b	75	52	0
Q'nbeyan	b	66	44	0
Quirindi	b	84	45	0
Singleton	b	70	53	0
SYDNEY ..	b	71	53	0
Tam'w'rth	h	74	40	0
Taralga ..	b	72	30	0
Taree	b	80	51	0
T'nt'rfield	b	76	44	0
Wagga ..	b	70	39	0
Walcha ..	b	74	35	0
Walgett ..	b	81	55	0
Warrah ..	b	76	45	0
W'nt'w'rth	b	77	54	0
W'll'ng'ng	b	72	52	0
Young ..	b	76	37	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., **b** standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Rc, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River: B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along westwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, but cloudy, with light variable winds and calms, risen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: Perth, 30·26 and 56°; Cossack, 29·88; and Ashburton, 87°.

South Australia.—Generally fine, clear, and warm, with light variable winds and calms, fallen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature:—On the coast: Eucla, 30·20 and 66°; M'Donnell Bay, 29·96; and Robe, 59°. In Northern Territory: Daly Waters, 30·08 and 81°; Port Darwin, 29·90 and 88°.

Victoria.—Generally fine and warm, with light northerly winds, fallen barometers, and moderate sea. Squally at Wilson's Promontory. Rainfall: Robe, 0·01; Cape Otway, 0·02; and Cape Schanck, 0·03. Extremes of barometers and temperature: Omeo, 30·17 and 54°; Hamilton and Portland, 29·92, and the latter 66°.

Tasmania.—Generally cloudy and unsettled, with light N. to W. winds and calms, risen barometers, and smooth sea. Rainfall: Hobart 0·02. Extremes of barometers and temperature: Low Heads, 30·08 and 51°; Southport, 29·84; and Falmouth, 56°.

New Zealand.—Generally fine, with variable winds. In extreme north parts passing showers from N.W. and squally. Barometers: Russell, 29·8; Wellington, 29·5; and Bluff, 29·6.

New South Wales.—Generally fine, clear, and warm, with light N. to E. winds and calms, risen barometers and smooth sea. No rain fallen. Cloudy, and like a change at places along the Victorian border. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·25; Gabo Island, 30·03; Bourke, 75°; and Cooma, 44°. Reading of the standard barometer at Sydney, corrected to 32° Fah., and mean sea level, at 9 a.m., 30·172. Extra stations: Lake Cudgellico, max. 71, min. 45, fine, clear, and warm. For further particulars see map.

Queensland.—Generally fine, with S. to S.E. winds, risen barometers, and moderate sea. No rain fallen. Extremes of barometers and temperature: Rockhampton, 30·18; Townsville, 29·88; Cooktown, 82°; and Cape Moreton, 68°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 28, fine, but cloudy, smooth sea, temperature 61°; Cape Otway, N.W., 28, cloudy and misty, smooth sea, temperature 63°; Melbourne, N.W., 18, fine but cloudy, temperature 75°; Cape Schanck, N.N.W., 23, fine, moderate sea, temperature 59°; Wilson's Promontory, N.E., 13, cloudy, and smooth sea, temperature 64°; Lakes Entrance, E., 23, cloudy, temperature 65°.

New South Wales.—Menindie, N.W., fine, temperature 73°; Wentworth, N.W., 28, fine, temperature 73°; Eden, N., 14, fine, smooth sea, temperature 61°; Moruya, N.E., 28, fine, smooth sea, temperature 68°; Cape St. George, W., 14, fine, smooth sea, temperature 69°; Sydney, E.N.E., 18, fine and hazy, smooth sea, temperature 69°; Newcastle, N.E., 14, fine, smooth sea, temperature 67°; Port Macquarie, N.E., 28, fine, smooth sea, temperature 77°; Clarence River, E.N.E., 20, fine, smooth sea, temperature 74°; Dubbo, S.W., 14, fine, temperature 68°; Goulburn, calm, fine, temperature 62°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 25 feet. Barwon: At Mogil Mogil, over banks; at Walgett, 35 feet 6 inches. Namoi: At Walgett, 18 feet 4 inches. Culgoa: At Goodooga, 10 feet 5 inches. Darling: At Brewarrina, 17 feet 6 inches; at Bourke, 22 feet 5 inches; at Louth, 18 feet 8 inches; at Tilpa, 23 feet 9 inches; at Wilcannia, 33 feet 2 inches; at Menindie, 28 feet 3 inches; at Pooncarie, 22 feet 10 inches; at Wentworth, 36 feet 3 inches. Murrumbidgee: At Gundagai, 8 feet; at Wagga, 5 feet 7 inches; at Hay, 6 feet; at Balranald, 17 feet 5 inches. Murray: At Albury, 8 feet; at Euston, 13 feet 9 inches.

ASTRONOMICAL MEMORANDA FOR OCTOBER 29.

Sun rises at 5.4, sets at 6.24; Moon, 6.45 a.m., 8.7 p.m.; Mercury, 5.54 a.m., 7.52 p.m.; Venus, 4.46 a.m., 5.40 p.m.; Mars, 7.23 a.m., 9.46 p.m.; Jupiter, 4.24 a.m., 5.7 p.m.; Saturn, 12.4 a.m., 10.6 a.m. Full Moon, 13th; New Moon, 27th.

High water at Fort Denison, October 29: 9.25 a.m., 9.45 p.m.

Stations and Ma				
Albury	b	75	50	0
Armidale	b	74	47	0
Balranald	b	89	53	0
Bathurst	b	75	41	0
Bend'm'r	b	75	44	0
Bodalla ..	b	75	50	0
Bourke ..	b	93	61	0
Brewarrina	b	104	41	0
Bundarra	b	74	53	0
C'md'n H	b	76	62	0
C.St.Geo	g	70	60	0
Carcoar ..	b	70	39	0
Casino ..	b	85	55	0
Cassilis ..	b	74	49	0
Clarence	b	85	58	0
C'nd'b'lin	c	88	51	0
Cooma ..	c	77	40	0
Coonab'n	b	83	33	0
Cowra ..	g	82	42	0
Deniliq'n	b	90	46	0
Dubbo ..	h	65	43	0
Eden	b	66	54	0·01
Euston ..	b	97	50	0
Forbes ..	b	—	57	0
Gl'n Inn's	b	82	45	0
Goulburn	b	73	45	0
Grafton..	b	85	59	0
Gulgong	b	77	45	0
Gunned'h	b	85	46	0
Hay	b	86	55	0
Inverell..	b	78	47	0
Kiandra	g	65	25	2·56
Lismore	b	88	61	0
Maitland	b	81	55	0
Marsdens	b	81	53	0
Menindie	b	86	46	0
Molong ..	b	67	40	0
M'r'ng'r'll	g	81	56	0
Moree ..	b	87	48	0
Moruya..	b	73	54	0
Moss Vale	b	71	53	0
Mt. Hope	b	82	—	0
M.Vict'ria	b	77	53	0
Mudgee	b	83	38	0
M'rr'm'bh	b	75	54	0
M'rr'r'ndi	b	73	53	0
Mus'br'k	b	85	44	0
Narrabri	b	80	43	0
Newcastle	b	76	57	0
Orange ..	b	67	42	0
Picton ..	b	79	47	0
P. M'q'rie	h	76	55	0
P. St'ph'n	b	75	55	0
Q'nbeyan	b	69	46	0
Quirindi	b	90	50	0
Singleton	b	70	56	0
Sydney ..	c	72	57	0
Tamw'rth	b	80	45	0
Taralga ..	b	76	42	0
Taree	b	81	55	0
T'nt'rfield	b	81	50	0
Wagga ..	b	78	55	0
Walcha ..	b	77	38	0
Walgett..	b	89	57	0
Warrah ..	b	78	41	0
W'ntw'rth	b	—	51	0
W'll'ng'ng	c	76	61	0
Young ..	b	84	48	0

SYDNEY OBS'

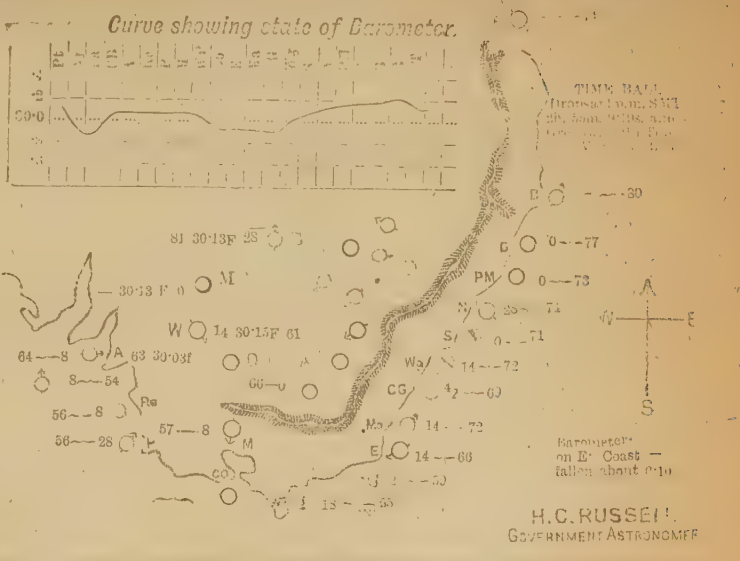
LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·1s. E

Average Annual Rainfall for 27 years..... 49·865

Average for 28 years from Jan. 1st to SEPTR. 30th 40·268

Rainfall from January 1st to [illegible] 0·000

Barometers corrected to 32° Fahr. and Mean Sea Level



H.C. RUSSELL,
GOVERNMENT ASTRONOMER

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In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; L, Eden; Ma, Moruya; C Observ., Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay fine but cloudy weather, with light west winds and smooth sea; barometer 30·16, temperature 59°.

South Australia.—Generally fine, with scattered clouds, light northerly winds and calms, fallen barometers, and smooth sea; threatening rain, with easterly winds, at places west of Adelaide; no rain fallen. Extremes of barometers and temperature on the coast: Cape Borda 30·05 and 54°, Eucla 29·84, and Port Augusta 70°; in Northern Territory—Daly Waters 30·04 and 82°, Port Darwin 30·13 and 88°.

Victoria.—Fine throughout' with light variable winds and calms, risen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: Cape Otway, 30·11; Omeo, 29·99 and 65°; Hamilton, 53°.

Tasmania.—Generally fine, with light southerly winds and calms, slightly risen barometers, and smooth to moderate sea. Light scattered clouds in N.E.; and 0·01 inch rain fallen at Hobart. Extremes of barometers and temperature: Falmouth, 30·03 and 54°; Hobart, 29·99 and 57°.

New Zealand.—Generally fine; in extreme north, strong, squally, S.W. wind; in south calm; rough sea on the west coast. Barometers: Russell, 29·8; Wellington, 29·9; and Bluff, 30·0.

New South Wales.—Generally fine, clear, and warm, with light variable winds and calms, fallen barometers, and smooth sea. Cloudy at scattered places in south parts; 2·56 inches rain and snow fallen at Kiandra, but only 0·01 inch at Eden, and these are the only stations reporting rain. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·20; Cape St. George, 29·86; Bourke, 81°; and Cooma, 57°. Reading of the standard barometer at Sydney corrected to 32° Fahr. and mean sea level at 9 a.m, 30·057. Extra station: Lake Cudgellico, max. 86°, min. 56°, fine and warm. For further particulars see map.

Queensland.—Generally fine, with N.E. to S.E. winds, risen barometers, and smooth sea to moderate sea; showery from S.E. at Townsville; strong squally, S.E. wind with rough sea at Cooktown. Rainfall: Townsville, 0·40; and Cooktown, 0·20. Extremes of barometer and temperature: Rockhampton, 30·22; Townsville, 29·95 and 59°; Cooktown, 81°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 18, fine, smooth sea, temperature 63°; Cape Otway, E.S.E., 18, fine, smooth sea, temperature 66°; Melbourne, S.S.W., fine, temperature 65°; Cape Schanck, S., 8, hazy, smooth sea, temperature 60°; Wilson's Promontory, S.W., 18, fine, smooth sea, temperature 59°; Lakes Entrance, S., 18, fine, temperature 64°.

New South Wales.—Menindie, calm, fine and warm, temperature 80°; Wentworth, N.W., 14, fine but cloudy, temperature 72°; Deniliquin, calm, fine, temperature 78°; Eden, S.E., 14, fine, smooth sea, temperature 62°; Moruya, S., 28, fine, smooth sea, temperature 67°; Cape St. George, S.S.E., 42, cloudy, smooth sea, temperature 74°; Sydney, E., 14, fine but cloudy, temperature 75°; Newcastle, N.W., 14, fine, smooth sea, temperature 87°; Port Macquarie, N.E., 28, fine, smooth sea, temperature 81°; Clarence River, N.E., 28, fine, smooth sea, temperature 78°; Walgett, N.W., fine and hot, temperature 91°; Dubbo, W.N.W., 14, fine, temperature 75°; Goulburn, N.W., fine, temperature 68°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 25 feet. Barwon: At Mogil Mogil, over banks; at Walgett, 37 feet. Namoi: At Walgett, 19 feet 6 inches. Culgoa: At Goodooga, 10 feet 2 inches. Darling: At Brewarrina, 15 feet 7 inches; at Bourke, 23 feet 1 inches; at Louth, 19 feet 2 inches; at Tilpa, 24 feet 11 inches; at Wilcannia, 33 feet 2 inches; at Menindie, 28 feet 1 inches; at Pooncarie, 23 feet 2 inches; at Wentworth, 16 feet 3 inches. Murrumbidgee: At Gundagai, 8 feet; at Wagga, 8 feet; at Hay, 6 feet; at Balranald, 13 feet 5 inches. Murray: At Albury, 7 feet 7 inches; at Euston, 13 feet 3 inches.

ASTRONOMICAL MEMORANDA FOR OCTOBER 30.

Sun rises at 5.3, sets at 6.25; Moon, 7.33 a.m., 9.7 p.m.; Mercury, 5.54 a.m., 7.56 p.m.; Venus, 4.45 a.m., 5.42 p.m.; Mars, 7.22 a.m., 9.45 p.m.; Jupiter, 4.21 a.m., 5.4 p.m.; Saturn, 12 a.m., 10.2 a.m. Full Moon, 13th; New Moon, 27th.

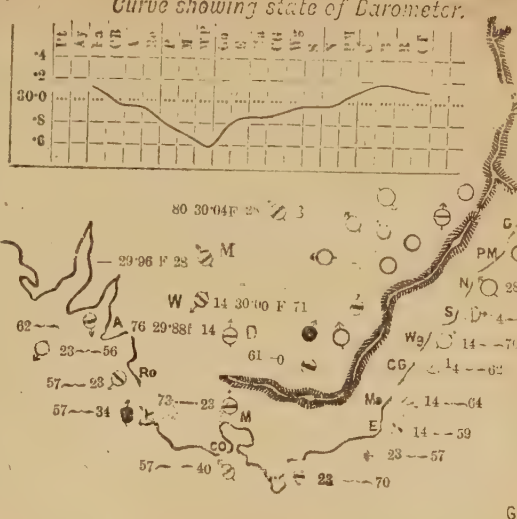
High water at Fort Denisen, October 30: 10.5 a.m., 10.25 p.m.

Stations	wt	Mx	Mn	r/in
Albury	g	80	59	0·05
Armidale	b	75	53	0
Balranald	g	99	68	0
Bathurst	b	83	55	0
Bend'm'r	b	82	48	0
Bodalla ..	b	86	47	0
Bourke ..	c	100	68	0
Br'w rrina	–	—	—	0
Bundarra	b	79	63	0
C'md'n H	c	80	63	0
C. St. Geo	g	85	58	0
Carcoar ..	b	75	58	0·02
Casino ..	b	93	56	0
Cassilis ..	b	80	56	0
Clarence	b	83	65	0
C'nd'b'lin	o	97	56	0
Cooma ..	c	82	56	0
Coonab'n	b	87	44	0
Cowra ..	u	83	49	0
Deniliq'n	g	90	60	0·02
Dubbo ..	h	93	51	0
Eden	u	73	58	0·01
Euston ..	g	98	65	0
Forbes ..	b	—	77	0
Gl'n Inn's	b	90	45	0
Goulburn	b	86	54	0
Grafton ..	b	94	59	0
Gulgong	b	85	59	0
Gunned'h	b	89	55	0
Hay	u	88	65	0
Inverell ..	o	82	52	0
Kiandra	r	71	48	0·40
Lismore	b	94	61	0
Maitland	b	92	60	0
Marsdens	c	85	62	0
Menindie	g	87	72	0
Molong ..	b	84	62	0
M'r'ng'r'll	c	90	66	0
Moree ..	b	89	58	0
Moruya ..	g	76	51	0·02
Moss Vale	h	80	58	0
Mt. Hope	c	91	—	0
M.Vict'ria	b	81	58	0
Mudgee	h	88	47	0
M'rr'm'bh	u	85	59	0
M'rr'r'ndi	b	79	63	0
Mus'lbr'k	b	94	53	0
Narrabri	b	90	55	0
Newcastle	b	89	62	0
Orange ..	b	77	56	0·02
Picton ..	b	89	54	0
P. M'q'rie	h	80	55	0
P. St'ph'n	h	83	58	0
Q'nbeyan	b	79	58	0
Quirindi	b	94	54	0
Singleton	b	80	64	0
Sydney ..	c	81	60	0·02
Tamw'rth	–	—	—	–
Taralga ..	b	80	53	0
Taree	b	88	59	0
T'nt'rfield	b	86	56	0
Wagga ..	r	81	62	0·12
Walcha ..	b	78	38	0
Walgett ..	b	96	66	0
Warrah ..	b	82	51	0
W'ntw'rth	g	91	61	0·01
W'll'ng'ng	h	91	60	0
Young ..	g	90	57	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to SEPTR 30th 40·968
Total Rainfall from January 1st to OCTOBER 30 30·704
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay fine but cloudy, with light south wind, and smooth sea; barometer 30·09.

South Australia.—Generally fine, with scattered clouds, light S. to S.W. winds, fallen barometers, and smooth sea. Light rains fallen at a few stations, the highest being 0·10 inch. Extremes of barometers and temperature. At the coast: Eucla, 30·11; Streaky Bay, 64°; M'Donnell Bay, 29·72; and Cape Borda, 56°. In Northern Territory: Daly Waters, 29·99 and 84°; Port Darwin, 29·88 and 75°.

Victoria.—Generally overcast and gloomy, with strong N. to W. winds, fallen barometers, and moderate sea; squally on the coast; hot wind blowing at Wilson's Promontory. At Cape Otway the gale is increasing, and the sea rising; passing showers from north at Portland. A few points rain fallen along the coast. Extremes of barometers and temperature: Horsham, 29·85; Wilson's Promontory, 29·57; Melbourne, 73°; and Hamilton, 57°.

Tasmania.—Generally cloudy and unsettled, with light N. to W. winds, fallen barometers, and moderate to rough sea. On the north coast from 3 to 6 points rain fallen. Extremes of barometers and temperature: Falmouth, 29·62; Southport, 29·39 and 62°; Low Heads, 56°.

New Zealand.—Generally fine, with S.E. winds, and barometers at 30·1 inches.

Queensland.—Generally fine, with N.E. to S.E. winds, fallen barometers, and moderate sea. Rainfall: Cooktown, 0·22. Extremes of barometers and temperature: Cape Moreton, 30·17 and 72°; Townsville, 29·87; and Cooktown, 82°.

New South Wales.—Generally fine and warm, with light northerly winds, fallen barometers, and smooth sea. In south and south-west parts cloudy and gloomy, with light rain fallen at Kiandra, Wagga, and Gabo Island. Light rain has fallen at scattered places in south parts on both sides of the range, the heaviest being 0·40 inch at Kiandra. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·15; Hay, 29·68; Bourke, 80°; and Kiandra, 50°. Reading of the standard barometer at Sydney corrected to 32° Fahr. and mean sea level at 9 a.m. 29·948. Extra stations: Gabo Island, light misty rain from north, 0·05 inch fallen; Brewarrina, max. 107, min. 47°, and cloudy; Lake Cudgellico, max. 74°, min. 69°, threatening and close. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—No telegram.

New South Wales.—Menindie, calm, fine, hot, temperature 81°; Wentworth, calm, fine, warm, temperature 71°; Deniliquin, W., cloudy, temperature 79°; Eden, N.E., 14, showery, smooth sea, temperature 60°; Moruya, N.W., 40, stormy, smooth sea, temperature 78°; Cape St. George, N.W., 14, cloudy, smooth sea, temperature 70°; Sydney, N.W., 20, showery, smooth sea, temperature 80°; Newcastle, N.W., 10, fine, smooth sea, temperature 85°; Port Macquarie, N.N.E., 28, cloudy, hazy, smooth sea, temperature 77°; Clarence River, N.E., 20, fine, smooth sea, temperature 80°; Walgett, N.W., cloudy, hot, temperature 85°; Dubbo, N.W., 20, fine, cloudy, hazy, temperature 77°; Goulburn, N.W., 20, fine, temperature 70°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

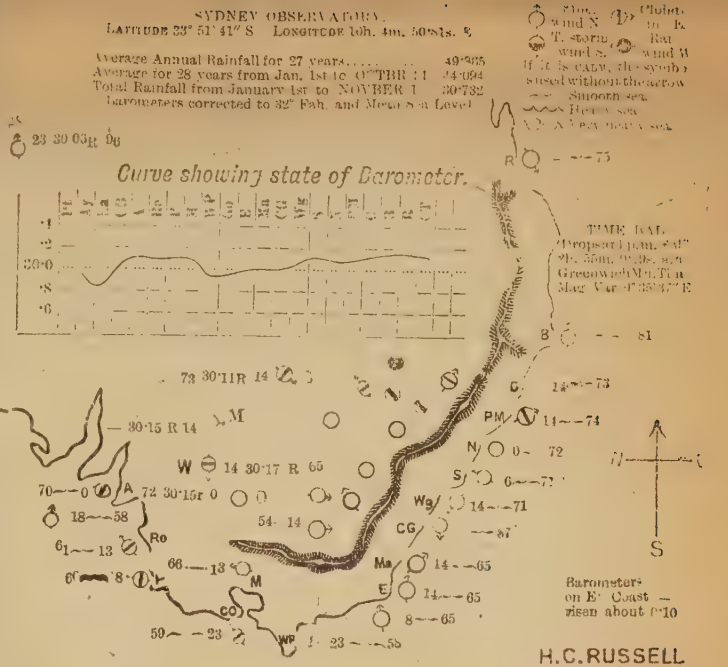
Macintyre: At Mungindi, 24 feet. Barwon: At Mogil Mogil, over banks; at Walgett, 38 feet 6 inches. Namoi: At Walgett, 21 feet. Culgoa: At Goodooga, 9 feet 8 inches. Darling: At Brewarrina, 20 feet 3 inches; at Bourke, 23 feet 11 inches; at Louth, 19 feet 9 inches; at Tilpa, 24 feet; at Wilcannia, 32 feet 8 inches; at Menindie, 28 feet 4 inches; at Pooncarie, 23 feet 5 inches; at Wentworth, 16 feet 3 inches. Murrumbidgee: At Gundagai, 8 feet; at Wagga, 8 feet; at Hay, 6 feet; at Balranald, 13 feet 5 inches. Murray: At Albury, 7 feet 10 inches; at Euston, 13 feet 9 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 1.

Sun rises at 5.1, sets at 6.26; Moon, 9.13 a.m., 10.51 p.m.; Mercury, 5.55 a.m., 8.3 p.m.; Venus, 4.44 a.m., 5.16 p.m.; Mars, 7.20 a.m., 9.44 p.m.; Jupiter, 4.15 a.m., 4.57 p.m.; Saturn, 11.53 p.m., 9.55 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 1: 11.27 a.m., 11.48 p.m.

Stations	wt	Mx	Mn	R'in
Albury	b	72	45	0·10
Armidale	b	82	59	0·03
Balranald	b	98	60	0
Bathurst	b	81	50	0·14
Bend'm'r	–	—	—	–
Bodalla ..	b	80	41	0·03
Bourke ..	c	109	66	0·43
Br'w rrina	–	—	—	–
Bundarra	c	82	73	0
C'md'n H	c	86	68	0·20
C. St. Geo	b	89	63	0
Carcoar ..	b	76	60	0
Casino ..	b	94	61	0
Cassilis ..	o	82	65	0
Clarence	h	88	65	0
C'nd'b'lin	b	91	41	0
Cooma ..	b	77	38	0·27
Coonab'n	g	90	56	0·05
Cowra ..	b	91	63	0
Deniliq'n	b	84	38	0·01
Dubbo ..	b	92	50	0
Eden	b	65	49	0
Euston ..	b	86	43	0
Forbes ..	b	—	44	0
Gl'n Inn's	r	85	56	0·38
Goulburn	b	80	42	0·02
Grafton ..	g	93	64	0
Gulgong	b	85	65	0
Gunned'h	c	92	64	0
Hay	b	77	47	0
Inverell ..	u	83	62	0·09
Kiandra	b	67	32	0·60
Lismore	c	92	45	0
Maitland	c	91	65	0·14
Maredens	b	83	56	0
Menindie	g	74	61	0
Molong ..	b	89	48	0
M'r'ng'r'll	b	80	47	0·03
Moree ..	r	92	60	0·23
Moruya ..	b	70	48	0
Moss Vale	b	62	52	0
Mt. Hope	b	80	—	0
M. Vict'ria	b	73	50	0·07
Mudgee	h	69	65	0
M'rr'm'bh	b	79	47	0·15
M'rr'ndi	–	—	—	–
Mus'br'k	b	91	60	0·13
Narrabri	g	90	61	0·08
Newcastle	b	75	36	0
Orange ..	b	74	45	0
Picton ..	b	65	53	0
P. M'q'rie	h	82	64	0·06
P. St'ph'n	g	78	64	0
Q'beyan	b	74	44	0·18
Quirindi	b	88	54	0
Singleton	b	88	63	0·10
Sydney ..	h	72	61	0·03
Tamw'rth	g	87	61	0
Taralga ..	b	85	42	0
Taree	g	93	66	0·98
T'nt'rfield	g	85	68	0
Wagga ..	b	82	58	0
Walcha ..	c	77	57	0·13
Walgett..	u	98	63	0
Warrah ..	–	—	—	–
W'ntw'rth	b	81	54	0
W'll'ng'ng	b	72	54	0
Young ..	b	86	42	0·19



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour: next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the south coast fine, with light westerly winds, fallen barometers, and smooth sea; no rain fallen. Albany, barometer, 29·94; Esperance Bay, 30·01, and temperature 62°.

South Australia.—Generally fine and warm, with light scattered clouds, light variable winds and calms, slightly risen barometers, and smooth sea. In Northern Territory.—Rainfall: Port Darwin, 0·36; Tennant's Creek, 0·25, and still raining lightly. Extremes of barometers and temperature. On the coast: Adelaide and Robe, 30·09; Eucla, 29·81 and 85°; M'Donnell Bay, 58°. In Northern Territory: Port Darwin, 29·88 and 86°; Daly Waters, 30·01 and 89°.

Victoria.—Generally fine, hazy, and misty, with light westerly winds, risen barometers, and moderate sea; squally at Wilson's Promontory, and 3·09 inch fallen. Extremes of barometers and temperature: Ballarat, 30·11 and 66°; Wilson's Promontory, 29·97; and Hamilton, 55°.

Tasmania.—Generally cloudy and unsettled, with westerly winds, risen barometers, and moderate sea. Rainfall: Low Heads, 0·07; Circular Head, 0·24; Hobart, 0·26; and Southport, 0·36. Extremes of barometers and temperature: Low Heads, 29·95; Hobart, 29·91 and 53°; Circular Head, 57°.

New Zealand.—Generally gloomy and cloudy, with N. E. to N.W. winds; misty rain at Wellington. Barometers: Russell, 30·3; Wellington, 30·1; and Bluff, 30·.

New South Wales.—Generally fine and warm, with light variable winds and calms, risen barometers, and smooth sea. In N.E. parts cloudy and gloomy, and it is raining at Moree and Glen Innes. During the last 24 hours light rain has fallen at scattered places, but principally on and near the range. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·17; Gabo, 29·97; Lismore, 75°; and Cooma, 50. Reading of the standard barometer at Sydney corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·071. Extra stations: Lake Cudgellico, max. 82°, min. 50°, fine and warm. For further particulars see map.

Queensland.—Generally fine, with light variable winds, steady barometers, and smooth sea. Strong south-east wind at Cooktown. Extremes of barometers and temperature: Rockhampton 30·17; Cape Moreton, 70°; Townsville, 29·76; and Cooktown, 86°.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, W., 28, misty and cloudy, smooth sea, temperature 60°; Melbourne, S., 8, fine, temperature 67°: Cape Schanck, S.S.E., 8, fine and hazy, sea smooth, temperature 62°: Wilson's Promontory, W., 18, cloudy, moderate sea, temperature 62°: Lakes Entrance, S.E., 18, cloudy, temperature 66°.

New South Wales.—Menindie, calm, dull, temperature 76°: Wentworth, S.W., 1, fine, temperature 71°; Deniliquin, calm; dull, temperature 77°; Moruya, N.E., 1, fine, smooth sea, temperature 76°; Sydney, S.E., 15, fine, smooth sea, temperature 72°; Newcastle, E., 1, fine, smooth sea, temperature 71°; Port Macquarie, N.N.E., 28, cloudy, smooth sea, temperature 76°; Clarence River, N.E., 1, dull, smooth sea, temperature 77°; Walgett, calm, dull, temperature 77°; Dubbo, calm, cloudy, temperature 75°; Goulburn, N.W., 1, fine, temperature 69°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 22 feet. Barwon: At Mogil Mogil, over banks; at Walgett, 41 feet. Namoi: At Walgett, 21 feet. Culgoa: At Goodooga, 9 feet. Darling: At Brewarrina, 21 feet; at Bourke, 25 feet 5 inches; at Louth, 20 feet 9 inches; at Tilpa, 24 feet 2 inches; at Wilcannia, 32 feet; at Menindie, 28 feet 5 inches; at Pooncarie, 23 feet 5 inches; at Wentworth, 16 feet 3 inches. Murrumbidgee: At Gundagai, 8 feet; at Wagga, 7 feet 10 inches; at Hay, 6 feet; at Balranald, 13 feet 4 inches. Murray: At Albury, 7 feet 9 inches; at Euston, 13 feet 9 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 2.

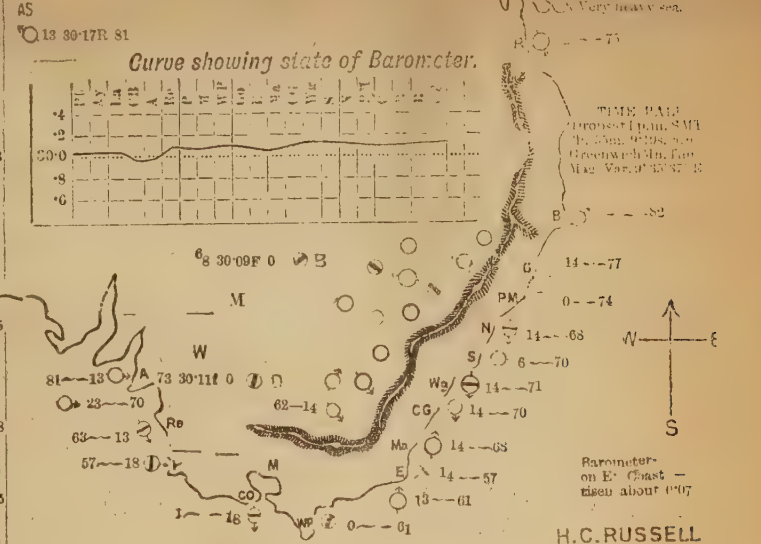
Sun rises at 5, sets at 6.27; Moon, 10.6 a.m., 11.44 p.m.; Mercury, 5.55 a.m., 8.6 p.m.; Venus, 4.44 a.m., 5.48 p.m.; Mars, 7.19 a.m., 9.44 p.m.; Jupiter, 4.12 a.m., 4.54 p.m.; Saturn, 11.49 p.m., 9.51 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison: — a.m., 12.10 p.m.

Albury..	b	72	45	0·20
Balranald	b	93	57	0
Bathurst	b	83	54	0·01
Bend'm'r	g	75	59	0
Bodalla..	b	82	47	0
Bourke ..	g	80	61	0
Br'w rrina	c	81	49	0
Bundarra	b	78	56	0
C'md'n H	c	80	67	0·12
C. St. Geo	b	75	59	0
Carcoar ..	b	73	65	0
Casino ..	h	92	65	0
Cassilis ..	n	80	66	0
Clarence	b	81	68	0
C'nd'b'lin	b	90	46	0
Cooma ..	c	85	45	0
Coonab'n	b	83	60	0·23
Cowra ..	b	91	64	0
Deniliq'n	c	89	46	0
Dubbo ..	b	89	50	0
Eden	u	75	52	0
Euston ..	–	—	—	–
Forbes ..	g	—	46	0
Gl'n Inn's	b	87	64	0
Goulburn	b	84	41	0
Grafton..	b	89	65	0·45
Gulgong	b	82	51	0
Gunned'h	c	81	66	0
Hay	b	85	56	0
Inverell..	b	78	57	0
Kiandra	b	75	33	0
Lismore	b	91	69	0
Maitland	c	88	66	0·28
Marsdens	b	63	56	0
Menindie	–	—	—	–
Molong ..	b	91	48	0
M'r'ng'r'll	b	83	52	0
Moree ..	b	90	61	0·05
Moruya..	b	77	51	0
Moss Vale	b	74	50	0
Mt. Hope	b	62	—	0
M. Vict'ria	b	84	45	0
Mudgee	b	88	53	0
M'rr'm'bh	b	82	50	–
M'rr'r'ndi	c	75	64	0·07
Mus'll'br'k	g	92	62	0
Narrabri	h	88	57	0·08
Newcastle	c	77	65	0
Orange ..	b	75	46	0
Picton ..	c	95	81	0
P. M'q'rie	b	79	64	0·02
P. St'ph'n	g	87	66	0
Q'nbeyan	b	74	53	0
Quirindi	g	88	63	0
Singleton	b	85	69	0
Sydney ..	h	78	63	0
Tamw'rth	g	81	60	0·05
Taralga ..	b	91	40	0
Taree	b	85	66	0·25
T'nt'rfield	b	84	73	0
Wagga ..	b	84	49	0
Walcha ..	b	72	63	0·03
Walgett..	g	81	64	0
Warrah ..	g	87	63	0
W'ntw'rth	–	—	—	–
W'll'ng ng	c	79	58	0
Young ..	b	90	47	0

SYDNEY OBSERVATIONS, 9 a.m., 30th Jan., 1895.

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to OCTBR 31 44·994
Total Rainfall from January 1st to NOVBER 2 30·732
Barometers corrected to 32° Fah. and Mean Sea Level



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light S.W. winds and calms on the west, and N.E. winds on south coast, steady barometers and smooth sea; no rain fallen. Extremes of barometers and temperature: Geraldton, 30·10; Cossack, 29·86; Ashburton, 30·; and Esperance Bay, 56°.

South Australia.—Generally fine and warm, with scattered clouds on the coast north of Terowie, light N.E. to S.E. winds, fallen barometers, and smooth sea. Light rain, accompanied by thunder and lightning, falling north of Caltowie. Rainfall: Tennant's Creek, 0·12; Alice Springs, 0·08; and Port Darwin 0·09 inch. Extremes of barometers and temperature. On the coast: Robe, 30·09; Streaky Bay, 29·90; Adelaide, 81°; and M'Donnell Bay, 55°. In Northern Territory.—Daly Waters, 30·01 and 94°; Port Darwin, 29·90 and 88°.

Victoria.—Generally fine, with light scattered clouds, light variable winds and calms, risen barometers, and smooth sea; foggy off Cape Otway. No rain fallen. Extremes of barometers and temperature: Lakes Entrance, 30·19; Ballarat, 30·05 and 70°; Portland, 57°.

Tasmania.—Generally fine, but cloudy, with light north to west winds, risen barometers, and moderate sea. No rain fallen. Extremes of barometers and temperature: Low Heads, 30·15 and 57°; Southport, 30·06; and Hobart, 59·0.

New Zealand.—In extreme north, calm and gloomy; in south, strong S.W. wind and fine weather. Barometers: Russell, 30·3; Wellington, 30·1; and Bluff, 30·.

New South Wales.—Generally fine and warm, with light variable winds and calms, slightly risen barometers, and smooth sea. Cloudy in scattered places, principally on and near the range in north. Light rain has fallen in north coast and mountain districts, heaviest between the Hunter and Clarence Rivers. Extremes of barometers and temperature at 9 a.m.: Wollongong, 30·13; Eden, 30·05; Hay, 81°; and Cooma, 52°. Reading of the standard barometer at Sydney corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·121. Extra station: Lake Cudgellico, max. 86°, min. 52°, fine and hot. For further particulars see map.

Queensland.—Generally fine, with variable winds and calms, steady barometers, and moderate sea. Passing showers, with fresh S.E. wind, and 0·08 inch of rain fallen at Cooktown. Extremes of barometers and temperature: Rockhampton 30·14; Townsville, 29·81; Cape Moreton, 71°; and Cooktown, 82°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.S.E., 24, cloudy, smooth sea, temperature 61°; Cape Otway, S.E., 18, cloudy, smooth sea, temperature 64°; Melbourne, no report; Cape Schanck, S.E., 6, fine, smooth sea, temperature 63°; Wilson's Promontory, E.N.E., 12, cloudy, smooth sea, temperature 63°; Lakes Entrance, S.E., 12, cloudy, temperature 67°.

New South Wales.—Menindie, E., cloudy; Wentworth, S.E., showery, temperature 69°; Deniliquin, calm, cloudy, temperature 79°; Eden, E., 14, fine, smooth sea, temperature 63°; Moruya, E.N.E., 14, cloudy and dull, smooth sea, temperature 66°; Cape St. George, E.N.E., 14, fine, smooth sea, temperature 71°; Sydney, E.N.E., 18, fine but cloudy, smooth sea, temperature 72°; Newcastle, N.E., 14, fine, smooth sea, temperature 72°; Port Macquarie, E., 28, cloudy and sultry, smooth sea, temperature 78°; Clarence River, N.E., 28, fine, smooth sea, temperature 75°; Walgett, calm, dull and sultry, temperature 79°; Dubbo, calm, cloudy, temperature 75°; Goulburn, W., 14, fine, temperature 71°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

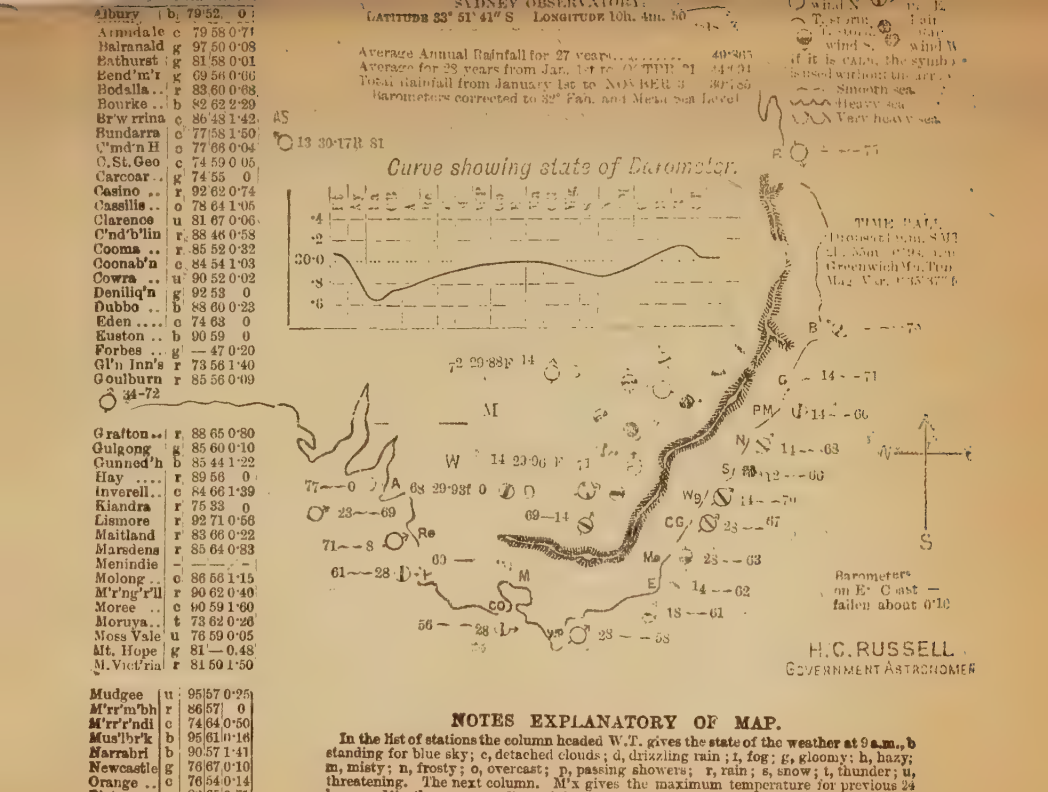
Macintyre: At Mungindi, 20 feet. Barwon: At Mogil Mogil, a banker; at Walgett, 41 feet. Namoi: At Walgett, 20 feet. Culgoa: At Goodooga, 8 feet 9 inches. Darling: At Brewarrina, 22 feet; at Bourke, 26 feet 1 inch; at Louth, 21 feet; at Tilpa, 24 feet; at Wilcannia, 31 feet 3 inches. Murrumbidgee: At Gundagai, 8 feet 6 inches.; at Wagga, 8 feet 9 inches; at Hay, 6 feet; at Balranald, 13 feet 4 inches. Murray: At Albury, 8 feet 2 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 3.

Sun rises at 5, sets at 6.28; Moon, 10.59 a.m.; Mercury, 5.56 a.m., 8.9 p.m.; Venus, 4.44 a.m., 5.50 p.m.; Mars, 7.18 a.m., 9.43 p.m.; Jupiter, 4.8 a.m., 4.51 p.m.; Saturn, 11.45 p.m., 9.47 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison: 12.31 a.m., 12.54 p.m.

Albury	b	79	52 0
Armidale	c	79	58 0·71
Balranald	g	97	50 0·08
Bathurst	g	81	58 0·01
Bend'm'r	g	69	56 0·06
Bodalla	r	83	60 0·88
Bourke	b	82	62 2·29
Br'w rrina	c	86	48 1·42
Bundarra	c	77	58 1·50
C'md'n H	c	77	66 0·04
C.St.Geo	c	74	59 0·05
Carcoar	g	74	55 0
Casino	r	92	62 0·74
Cassilis	o	78	64 1·05
Clarence	u	81	67 0·06
C'nd'b'lin	r	88	46 0·58
Cooma	r	85	52 0·32
Coonab'n	c	84	54 1·03
Cowra	u	90	52 0·02
Deniliq'n	g	92	53 0
Dubbo	b	88	60 0·23
Eden	c	74	63 0
Euston	b	90	59 0
Forbes	g	—	47 0·20
Gl'n Inn's	r	73	56 1·40
Goulburn	r	85	56 0·09
Grafton	r	88	65 0·80
Gulgong	g	85	60 0·10
Gunned'h	b	85	44 1·22
Hay	r	89	56 0
Inverell	c	84	66 1·39
Kiandra	r	75	33 0
Lismore	r	92	71 0·56
Maitland	r	83	66 0·22
Marsdens	r	85	64 0·83
Menindie	–	–	– –
Molong	o	86	56 1·15
M'r'ng'r'll	r	90	62 0·40
Moree	c	90	59 1·60
Moruya	t	73	62 0·26
Moss Vale	u	76	59 0·05
Mt. Hope	g	81	— 0.48
M. Vict'ria	r	81	59 1·50
Mudgee	u	95	57 0·25
M'rr'm'bh	r	86	57 0
M'rr'ndi	c	74	64 0·50
Mus'lbr'k	b	95	61 0·16
Narrabri	b	90	57 1·41
Newcastle	g	76	67 0·10
Orange	o	76	54 0·14
Picton	o	83	65 0·71
P. M'q'rie	g	79	62 0·24
P. St'ph'n	r	78	66 0·22
Q'nbeyan	g	77	59 0
Quirindi	o	81	61 0·74
Singleton	b	86	67 0·20
Sydney	r	76	66 0·05
Tamw'rth	b	82	60 0·63
Taralga	r	91	57 0·38
Taree	r	81	66 0·20
T'nt'rfield	g	84	63 0·31
Wagga	g	82	65 0·03
Walcha	r	77	57 0·48
Walgett	g	86	61 2·15
Warrah	b	85	62 0·10
W'ntw'rth	h	91	60 0
W'll'ng'g	o	79	67 0
Young	g	93	59 0·05



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt. Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go. Gabo; E, Eden; Ma. Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In north parts fine, with light southerly winds and moderate sea; in south, showery and squally, with strong westerly winds and rough sea. Rainfall: Perth, 0·39, and Albany, 0.20. Extremes of barometers and temperature: Perth, 30·10; Cossack, 29·79; Ashburton, 89°; and Esperance Bay, 54°.

South Australia.—Generally fine and warm, with light N. to N.E. winds and calms, fallen barometers, and moderate sea. Heavy rain and thunderstorms yesterday and during the night between Hamley Bridge and Beltana; and hailstorms in places. Rainfall: 2·05 inch; Carrieton, 1·77; and Hammond, 1·65. Extremes of barometers and temperature on the coast: Adelaide, 29·88 and 77°; Eucla, 29·60; and M'Donnell Bay, 60°.

Victoria.—Generally fine, with clouds in places, light E. to S. winds, fallen barometers, and smooth sea; misty, sultry, and squally in places on the coast. Rainfall: Omeo, 0·05; and Lakes Entrance, 0·02. Extremes of barometers and temperature: Lakes Entrance, 30·07; Hamilton, 29·87; Echuca, 72°; and Cape Otway, 56°.

Tasmania.—Generally fine, with light N.E. to S.E. winds, steady barometers, and smooth sea. Circular Head reports rough sea. No rain fallen. Extremes of barometers and temperature: Falmouth, 30·14; Circular Head, 30·06; Hobart, 64°; and Southport, 56°.

New South Wales.—Generally cloudy and gloomy, with light N.E. to S.E. winds, fallen barometers, and smooth sea. Raining more or less heavily in the eastern division of the colony, principally in south. During the last 24 hours, rain has fallen generally. Of 14 stations reporting above an inch fallen, 10 are situated in the Darling watershed, and of these Bourke and Walgett had above two inches. The former place reports that very heavy thunderstorms, with very vivid lightning and very strong wind, passed there during the night. Walgett also experienced heavy thunderstorm during the night. Extra stations: Newton Boyd, raining heavily, 1·48 inch rain fallen. Lawrence, 1·41 inch rain fell during one hour yesterday; Camden, showery, 0·60 inch fallen; Wilcannia, 0·46 inch; Hill End, raining steadily; Nowra, max. 80, min. 63, rain 0·10 inch, heavy showers from S.E. falling; Lake Cudgellico, max. 61, min. 51, rain 0·60 inch and dull. For further particulars see map.

Queensland.—Cloudy and unsettled, with variable winds and calms, fallen barometers, and moderate sea. Showery at Cooktown. Rainfall: Cooktown, 0·29; and Townsville, 0·17 inch. Extremes of barometers and temperature: Rockhampton, 30·14; Townsville, 29·71; Cape Moreton, 72°; and Cooktown, 80°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.S.E., 24, gloomy, smooth sea, temperature 65°; Cape Otway, E., 34, threatening and gloomy, moderate sea, temperature 57°; Melbourne, S.W., cloudy, temperature 68°; Cape Schanck, E., 13, misty, smooth sea, temperature 62°; Wilson's Promontory, E.N.E., 28, squally and foggy, moderate sea, temperature 59°; Lakes Entrance, S.E., 28, misty and cloudy, temperature 66°.

New South Wales.—Menindie, calm, fine, temperature 71°; Wentworth, E., fine, hot, temperature 74°; Deniliquin, calm, cloudy, temperature 76°; Eden, calm, cloudy, smooth sea, temperature 64°; Moruya, S.E., 28, thick, raining, smooth sea, temperature 63°; Sydney, W.S.W., 15, threatening, smooth sea, temperature 64°; Newcastle, N.E., 1, fine, smooth sea, temperature 71°; Port Macquarie, N.N.E., 42, hazy, smooth sea, temperature 74°; Clarence River, N.W., 14, dull, smooth sea, temperature 75°; Dubbo, N.W., 28, fine, temperature 76°; Goulburn, E.N.E., 1, showery, temperature 67°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 19 feet. Barwon: At Mogil Mogil, a banker; at Walgett, 40 feet. Namoi: At Walgett, 19 feet. Culgoa: At Goodooga, 8 feet 5 inches. Darling: At Brewarrina, 22 feet 6 inches; at Bourke, 27 feet 9 inches; at Louth, 22 feet; at Tilpa, 25 feet; at Wilcannia, 31 feet 6 inches; at Pooncarie, 23 feet 5 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 8 feet; at Wagga, 10 feet; at Hay, 6 feet 3 inches; at Balranald, 13 feet 4 inches. Murray: At Albury, 9 feet; at Euston, 13 feet 9 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 1.

Sun rises at 4.54, sets at 6.29; Moon, rises at 11.52 a.m., sets at 12.27 a.m.; Mercury, 5.56 a.m., 8.12 p.m.; Venus, 4.43 a.m., 5.52 p.m.; Mars, 7.17 a.m., 9.43 p.m.; Jupiter, 4.5 a.m., 4.48 p.m.; Saturn, 11.41 p.m., 9.43 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison: 1.17 a.m., 1.44 p.m.

METEOROLOGICAL ABSTRACT, OCTOBER, 1886, with results for the same month during the preceding 27 years.

—	Barometer at 32° Fah. and mn. sea lev'l.	Temperature in Shade.			Rainfall.	
		Mean Max.	Mean Min.	Mean.	Amount Inches.	No. of days.
1886: October ...	29·872	71·2	55·8	63·5	5·526	11
Average for 28 years ...	29·996	71·0	55·7	63·3	3·126	15
Monthly Extremes: Highest ...	30·181	77·7	59·1	68·5	8·645	21
Year ...	1871	1867	1867	1867	1882	'70,'84
Lowest ...	29·825	66·9	52·7	59·8	0·201	4
Year ...	1863	1881	1881	1881	1867	1867

Wind.—Prevailing direction, W.; average prevailing direction for 28 years, N.E.; October, 1886, mean miles per hour, 13·4.

Temperature.—Highest shade temperature, 88·9, on the 30th; highest shade temperature in any October since 1859, 98·1, on the 24th, 1867; lowest shade temperature, 49·0, on the 6th; lowest shade temperature in any October since 1859, 44·0, on the 3rd, 1865.

Rainfall.—Greatest fall in one day, 4·682, on the 15th; greatest fall in one day in any October since 1859, 4·890, on the 5th, 1878.

H. C. RUSSELL, Government Astronomer.

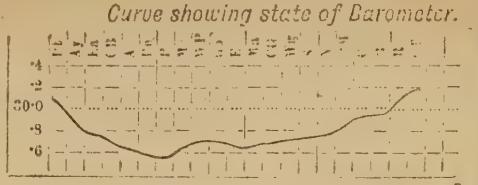
Sydney Observatory, November 3, 1886.

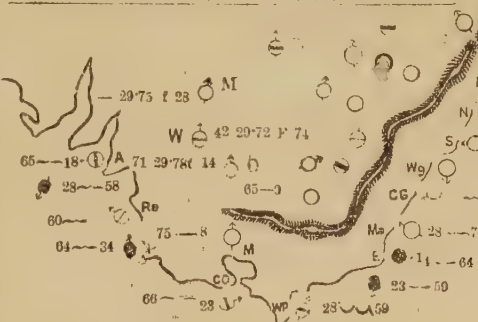
Stations	W.T.	Mx.	Mn.	R'n
Albury	b	72	55	0·14
Armidale	b	76	60	0
Balranald	b	96	55	0
Bathurst	c	73	51	0·44
Bend'm'r	b	78	56	0
Bodalla ..	c	73	59	1·81
Bourke ..	g	88	69	0
Br'w rrina	b	98	53	0
Bundarra	b	80	62	0
C'md'n H	c	79	65	0·40
C. St. Geo	b	67	60	1·69
Carcoar ..	b	70	54	0·58
Casino ..	b	82	66	0·07
Cassilis ..	c	78	59	0·26
Clarence	b	81	62	0·04
C'nd'b'lin	b	89	42	0·40
Cooma ..	c	63	42	0·18
Coonab'n	b	80	62	0·05
Cowra ..	c	90	52	0·73
Deniliq'n	b	82	52	0
Dubbo ..	b	84	56	0·25
Eden	r	66	64	0·25
Euston ..	—	—	—	—
Forbes ..	b	—	45	0·50
Gl'n Inn's	b	67	55	0
Goulburn	b	62	49	0·28
Grafton ..	b	79	62	0·40
Gulgong	u	77	51	0·60
Gunned'h	b	85	62	0·30
Hay	b	85	66	0
Inverell ..	c	76	61	0
Kiandra	c	68	45	0·20
Lismore	b	79	64	0·02
Maitland	b	85	60	0·06
Marsdens	b	75	60	0·18
Menindie	b	75	67	0
Molong ..	g	76	54	0·15
M'r'ng'r'll	b	72	52	0·62
Moree ..	b	79	59	0
Moruya..	b	71	60	0·68
Moss Vale	b	68	53	1·07
Mt. Hope	b	75	—	0·18
N.I. Vict'ria	b	63	47	1·13
Mudgee	c	79	48	0·29
M'rr'm'bh	b	65	53	0·72
M'rr'm'ndi	b	75	63	0·45
Mus'b'r'k	c	90	53	1·20
Narrabri	b	83	57	0·21
Newcastle	b	75	60	0·35
Orange ..	b	73	50	0·36
Picton ..	b	61	54	1·27
P. M'q'rie	b	78	60	0
P. St'ph'n	b	77	57	0·35
Q'beyan	b	62	54	0·40
Quirindi	b	82	61	0
Singleton	b	83	62	0·42
SYDNEY ..	h	71	62	1·40
Tamw'rth	b	79	62	0
Taralga ..	b	79	42	0·71
Taree	b	82	61	0·15
T'nt'rfield	b	85	72	0
Wagga ..	b	71	52	0·52
Walcha ..	b	67	58	0
Walgett..	b	86	66	0·13
Warrah ..	b	87	60	0·58
W'ntw'rth	u	89	65	0
W'll'ng'ng	b	71	60	1.49
Young ..	c	69	48	0·58

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·816
Average for 28 years from Jan. 1st to OCTOBER 31 41·994
Total Rainfall from January 1st to NOVEMBER 4 32·157
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.





NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast-station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:— Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along westwards; northerly winds preceding them, and southerly following.

Western Australia.—In south parts overcast and threatening, with showers in places; strong wind in squalls from S. to W.; steady barometers and rough sea. Rainfall: Albany, 0·35; Esperance Bay, 0·04. Extremes of barometers and temperature: Perth, 30·09 and 62°; Esperance Bay, 29·74 and 57°.

South Australia.—Generally fine, clear, and cool, with scattered clouds; fresh N.W. to S.W. winds, fallen barometers, and moderate to rough sea. Passing showers of light rain on parts of the coast, and in S.E. parts; squally on the coast. Light rain fallen south of Port Augusta; heaviest over Mount Lofty Ranges; Crafers, 0·57; Narracoote, 0·68; Penola, 0·61; Adelaide, 0·30; Robe, 0·28; and other stations lesser quantities. Extremes of barometers and temperature: Eucla, 29·81; M'Donnell Bay, 29·54; Cape Border, 58°; and Adelaide, 65°

Victoria.—Cloudy, foggy, and light passing showers on the coast; fine and hazy, with light scattered clouds inland; light northerly winds, and moderate to rough sea. Portland, 0·02 inch rain. Extremes of barometers and temperature: Wilson's Promontory, 29·69; Portland, 29·54; Melbourne, 75°; and Wilson's Promontory, 59°.

Tasmania.—Generally cloudy, gloomy, and unsettled, with fallen barometers, light easterly winds, and moderate sea. No rain fallen. Extremes of barometers and temperature: Hobart, 29·86; Southport, 29·79 and 68°; Falmouth, 56°.

New Zealand.—Generally fine, with S.E. to S.W. winds Barometers: Russell and Bluff, 30·2; Wellington, 30·0.

Queensland.—In south parts fine, with N.E. to S.E. winds and moderate sea. No rain fallen. No telegrams from north.

New South Wales.—Generally fine and warm, with light N. to W. winds, fallen barometers, and smooth sea. Cloudy at scattered places in south parts, and light rain falling in extreme south coast districts. During the last 24 hours rain has fallen in the eastern division generally, principally in south parts, and heaviest on the coast, where several stations report above an inch fallen. Extremes of barometers and temperature at 9 a.m.: Clarence, 29·96; Eden, 29·65; Bourke, 77°; and Cooma, 58°. Reading of standard barometer at Sydney corrected to 32° Fahr., and mean sea level at 9 a.m., 29·754. Extra stations.—Rainfall: Bega, 1·63 inch; Camden, 1·20; Gabo Island, 0·26; Hill End, ·60; Lake Cudgellico, max. 72, min. 51, rainfall 0·20 inch; Nowra, max. 70°, min. 51°, rainfall 1·04 inch. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 28, fine, but cloudy., smooth sea, temperature 67°; Cape Otway, N., 18, cloudy, smooth sea, temperature 70°; Melbourne, N.N.E., 13, misty, and rain, temperature 56°; Cape Schanck, calm, passing showers, moderate sea, temperature 65°; Wilson's Promontory, N.N.E., 23, squally and misty, rough sea, temperature 64°; Lakes Entrance, N.E., 23, foggy, temperature 62°.

New South Wales.—Menindie, W., 28, fine, temperature 82°; Wentworth, S.E., 28, fine and clear, temperature 70°; Deniliquin, calm, showery, temperature 71°; Eden, E., 14, fine, smooth sea, temperature 65°; Moruya, E., 14, fine, smooth sea, temperature 76°; Cape St. George, S., 14, fine, smooth sea, temperature 71°. Sydney, N.E., 18, fine and cool, smooth sea, temperature 72°; Newcastle, N.W., 28, fine, smooth sea, temperature 85°; Port Macquarie, N.N.E., 42, fine and hazy, moderate sea, temperature 78°; Clarence River, N.E., 28, fine, moderate sea, temperature 80°; Walgett, N.W., cloudy and stormy, temperature, 77°; Dubbo, N.W., 28, stormy looking, temperature 78°; Goulburn, W., fine, temperature 70°; Mount Victoria, W., fine and cool.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 18 feet. Barwon: At Mogil Mogil, 28 feet; at Walgett, 39 feet. Namoi: At Walgett, 17 feet 10 inches. Culgoa: At Goodooga, 8 feet 5 inches. Darling: At Brewarrina, 24 feet 6 inches; at Bourke, 28 feet 5 inches; at Louth, 22 feet 6 inches; at Tilna, 25 feet 8 inches; at Wilcannia, 29 feet 10 inches; at Menindie, 28 feet 6 inches; at Pooncarie, 23 feet 5 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 8 feet; at Wagga, 9 feet 3 inches; at Hay, 7 feet; at Balranald, 13 feet 11 inches. Murray: At Albury, 9 feet 3 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 5.

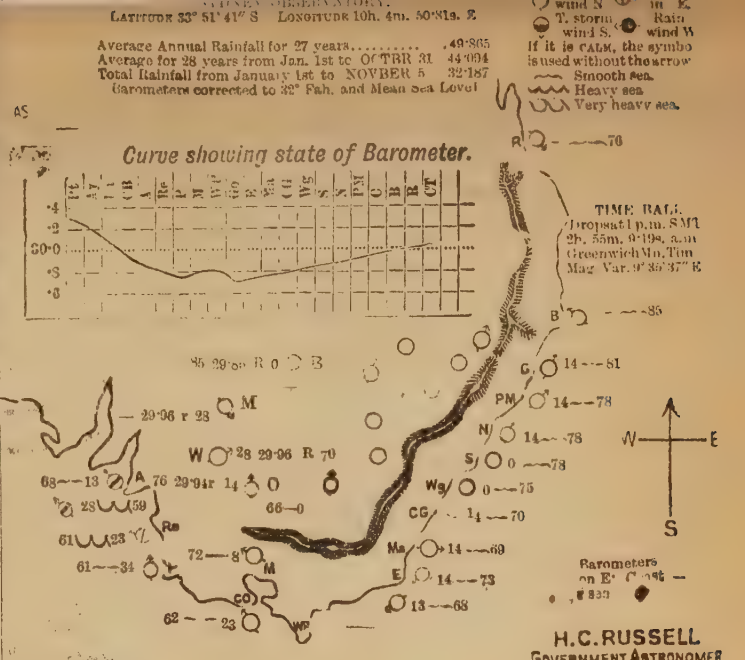
Sun rises at 4.58, sets at 6.30; Moon, rises at 12.45 p.m., sets at 1.6 a.m.; Mercury, 5.57 a.m., 8.15 p.m.; Venus, 4.43 a.m., 5.54 p.m.; Mars, 7.16 a.m., 9.42 p.m.; Jupiter, 4.1 a.m., 4.45 p.m.; Saturn, 11.37 p.m., 9.39 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 5: 2.11 a.m., 2.42 p.m.

Albury	b	81 54	0·08
Armidale	b	80 59	0·04
Balranald	b	87 48	0·19
Bathurst	b	78 54	0·59
Bend'n'r	b	82 58	0·46
Bodalla ..	b	83 54	0
Bourke ..	b	91 72	0
Br'w rrina	b	97 54	0
Bundarra	b	80 —	0
C'md'n H	b	82 68	0·05
C.St.Geo	b	75 60	0
Carcoar ..	b	75 61	0·35
Casino ..	b	94 69	0
Cassilis ..	b	80 64	0
Clarence	b	83 71	0
C'nd'b'lin	b	88 49	0·60
Cooma ..	b	81 49	0
Coonab'n	b	85 62	0·10
Cowra ..	b	89 53	0·43
Deniliq'n	b	83 51	0·20
Dubbo ..	b	88 58	0·93
Eden	b	73 57	0·01
Euston ..	b	81 48	0·05
Forbes ..	b	— 50	0·76
Gl'n Inn's	b	77 56	0
Goulburn	b	78 52	0
Grafton ..	b	95 69	0
Gulgong	b	80 60	0·70
Gunned'h	b	81 65	0·17
Hay	b	86 56	0·07
Inverell ..	b	85 61	0
Kiandra ..	f	72 45	0·09
Lismore	b	92 73	0
Maitland	b	90 64	0·24
Marsdens	b	83 65	0·16
Menindie	b	87 65	0
Molong ..	b	81 54	0·87
M'r'ng'r'll	b	82 60	0·03
Moree ..	b	87 63	0·24
Moruya ..	h	75 57	0
Moss Vale	h	73 60	0
Mt. Hope	b	86 —	0
M.Vict'ria	b	75 47	0·22
Mudgee	b	83 51	0·88
M'rr'm'bh	b	81 59	0
M'rr'r'ndi	b	79 64	0·63
Mus'll'br'k	b	90 59	0·41
Narrabri	b	83 57	0·18
Newcastle	b	87 65	0·10
Orange ..	b	75 53	1·14
Picton ..	b	81 54	0
P. M'q'rie	h	81 62	0·01
P. St'ph'n	h	81 46	0·25
Q'nbeyan	b	73 54	0
Quirindi	b	84 60	0
Singleton	h	87 66	0·60
SYDNEY ..	b	80 67	0
Tamw'rth	b	85 60	0·10
Taralga ..	b	80 46	0
Taree	b	87 67	0·79
T'nt'rfield	b	84 76	0
Wagga ..	b	73 68	0·02
Walcha ..	b	71 38	0·08
Walgett ..	b	86 67	0
Warrah ..	b	90 65	0·85
W'ntw'rth	b	86 55	0·10
W'll'ng ng	b	80 67	0
Young ..	g	84 54	0

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to OCTBR 31 44·094
Total Rainfall from January 1st to NOVBER 5 32·187
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; z, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Fine throughout, with fresh S.E. to S.W. winds, risen barometers, and moderate to rough sea. Rainfall: Esperance Bay, 0·38; and Albany, 0·04. Extremes of barometers and temperature: Geraldton, 30·29; Cossack, 29·86; Ashburton, 85°; and Esperance Bay, 58°.

South Australia.—Generally fine, with light north-westerly winds, fallen barometers, and rough sea. On and near the coast light scattered clouds, with rather strong winds. No rain fallen. Extremes of barometers and temperature: Eucla, 30·06; M'Donnell Bay, 29·73; Adelaide, 68°; and Cape Borda, 59°.

Victoria.—Generally fine, with light N. to N.W. winds, risen barometers, and smooth sea. Rainfall: Horsham, 0·50; Portland, 0·21; Hamilton, 0·19; Cape Schanck, 0·16; Ballarat, 0·12; and other stations lesser quantities. Extremes of barometers and temperature: Lakes Entrance, 29·88; Omeo, 29·75; Melbourne, 72°; and Hamilton, 58°.

Tasmania.—Generally cloudy and unsettled, with light N. to W. winds, fallen barometers, and moderate to rough sea. Rainfall: Circular Head, 0·06; Hobart, 0·05. Extremes of barometers and temperature: Low Heads, 29·76 and 58°; Hobart, 29·58 and 58°.

New Zealand.—Generally fine, with N.W. to S.W. winds. Barometers: Russell, 30·3; Wellington and Bluff, 30·2.

New South Wales.—Generally fine and warm, with light northerly winds and calms, risen barometers, and smooth sea. Light rain has fallen generally, principally in south parts, and heaviest west of the range. Yesterday noon a heavy thunderstorm passed over Hay from west, and was accompanied by the most violent lightning seen there during the last ten years Murrurundi and Hill End also experienced heavy thunderstorms during the night. Extremes of barometers and temperature at 9 a.m.: Clarence, 29·96; Gabo, 29·73; Bourke, 85°; and Kiandra, 57°. Reading of the standard barometer, corrected to 32° Fahr., and mean sea level at 9 a.m., 29·852. Extra stations. Lake Cudgellico, max. 84°, min. 50°, rainfal 11·87 inch; fine and hot; Hill End, rainfall 0·32 inch. For further particulars see map.

Queensland.—Generally fine and clear, with variable winds and calms, fallen barometers, and moderate sea. Extremes of barometers and temperature: Cooktown, 30·02 and 87°; Townsville, 29·70; and Cape Moreton, 74°.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, N.W., 24, threatening rain, smooth sea, temperature 65°; Melbourne, N.W., 18, fine, temperature 78°; Wilson's Promontory, W., 46, showery, smooth sea, temperature 61°.

New South Wales.—Menindie, calm, cloudy, temperature 72°; Wentworth, N., fine and warm, temperature 73°; Deniliquin, N.W., fine, temperature 80°; Eden, E.S.E., 14, fine, smooth sea, temperature 68°; Moruya, N.E., 28, fine, smooth sea, temperature 74°; Cape St. George, N., 14, fine, smooth sea, temperature 71°; Sydney, N.E., 16, fine smooth sea, temperature 80°; Newcastle, N.E., 14, fine, smooth sea, temperature 81°; Port Macquarie, N.E., 28, hazy, temperature 82°; Clarence River, N.E., 28, fine, moderate sea, temperature 80°; Dubbo, N., 14, fine, temperature 83°; Goulburn, N.W., fine, temperature 76°; Walgett, N.W., fine and sultry, temperature 89°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 17 feet 6 inches. Barwon: At Mogil Mogil, 26 feet; at Walgett, 38 feet 10 inches. Namoi: At Walgett, 15feet 6 inches. Culgoa: At Goodoogs, 8 feet 9 inches. Darling: At Brewarrina, 26 feet; at Bourke, 29 feet 1 inch; at Louth, 23 feet 2 inches; at Tilpa, 26 feet 4 inches; at Wilcannia, 29 feet 3 inches; at Menindie, 28 feet 6 inches; at Pooncarie, 23 feet 5 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 8 feet; at Wagga, 8 feet 3 inches; at Hay, 7 feet 2 inches; at Balranald, 13 feet. Murray: At Albury, 9 feet; at Euston, 13 feet 8 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 6.

Sun rises at 4.57, sets at 6.31; Moon, 1.38 p.m., 1.41 a.m.; Mercury, 5.57 a.m., 8.18 p.m.; Venus, 4.43 a.m., 5.56 p.m.; Mars, 7.15 a.m., 9.42 p.m.; Jupiter, 3.58 a.m., 4.42 p.m.; Saturn, 11.33 p.m., 9.35 a.m. Full Moon, 12th; New Moon, 26th.

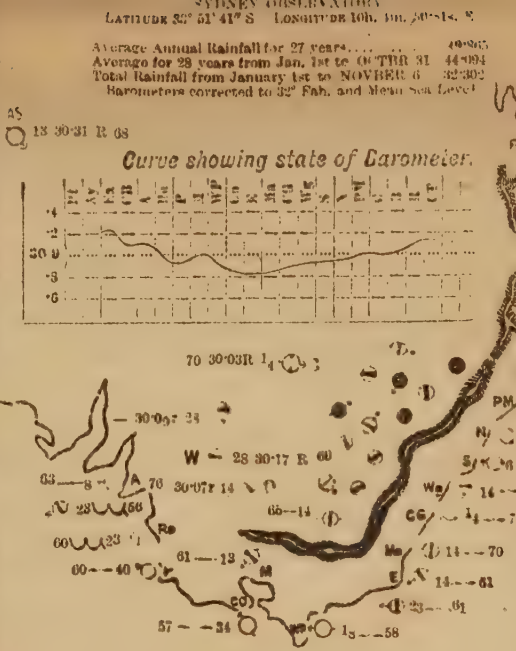
High water at Fort Denison, November 6: 3.13 a.m., 3.46 p.m.

Albury	c	82	59	0
Armidale	b	99	62	0
Balranald	g	95	53	0
Bathurst	g	86	59	0·58
Bend'm'r	r	86	64	0·01
Bodalla ..	b	87	64	0
Bourke ..	b	101	69	0·60
Br'w rina	c	103	51	0·12
Bundarra	g	83	—	0·06
C'mdn H	b	86	72	0
C.St. Geo	c	79	59	0
Carcoar ..	g	78	61	1·82
Casino ..	b	100	70	0·19
Cassilis ..	u	83	64	0·50
Clarence	b	85	67	0
C'nd'b'lin	g	91	52	0·96
Cooma ..	c	85	58	0
Coonab'n	r	91	60	0·89
Cowra ..	c	89	53	0·06
Deniliq'n	g	90	55	0
Dubbo ..	r	92	60	0·87
Eden	c	78	68	0
Euston ..	b	93	58	0
Forbes ..	r	—	52	1·10
Gf'n Inn's	u	91	50	0
Goulburn	g	88	58	0·06
Grafton ..	r	98	71	0
Gulgong ..	r	85	52	1·72
Gunned'h	c	91	67	0·22
Hay	c	84	56	0
Inverell ..	r	83	68	0
Kiandra	g	58	45	0
Lismore	b	96	72	0
Maitland	g	92	64	0
Marsdens	c	85	70	0·46
Menindie	g	80	64	0
Molong ..	c	84	59	1·52
M'r'ng'r'll	c	90	61	0·96
Moree ..	g	91	67	0·17
Moruya ..	g	75	66	0·02
Moss Vale	o	85	64	0
Mt. Hope	g	87	—	0
M. Vict'ria	u	81	59	0·15
Mudgee	r	88	57	1·06
M'rr'mb'h	g	78	63	0·15
M'rr'ndi	g	83	68	0
Mus'br'k	b	92	63	0·04
Narrabri	r	91	64	0·42
Newcastle	b	91	70	0
Orange ..	g	80	57	1·03
Picton ..	g	84	54	0.01
P. M'q'rie	b	84	67	0
P. St'ph'n	b	83	69	0
Q'beyan	c	81	64	0·30
Quirindi	c	96	64	0
Singleton	b	90	70	0·19
Sydney ..	c	82	68	0·12
Tamw'rth	g	89	66	0
Taralga ..	c	85	67	0
Taree	b	91	68	0
T'nt'rfield	b	89	61	0
Wagga ..	c	71	58	0
Walcha ..	g	80	55	0
Walgett ..	g	98	68	0·50
Warrah ..	g	86	65	0
W'ntw'rth	c	89	58	0
Will'ng'g	c	84	72	0
Young ..	g	88	61	0·07

SYDNEY OBSERVATORY

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 1m. 30·1s. E

Average Annual Rainfall for 27 years.... 49·965
Average for 28 years from Jan. 1st to OCTBR 31 44·994
Total Rainfall from January 1st to NOVBER 6 32·302
Barometers corrected to 32° Fah. and Mean Sea Level



H.C. RUSSELL.
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; s, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; th, threatening. The next column, M's gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: Fall, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Mo, Moruya; C G Jervis, Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, fine weather, with light S.W. wind, and moderate sea. Barometer risen to 30·24, and temperature to 64°.

South Australia.—Generally fine, with scattered clouds south of Kooringa, cloudy and gloomy thence to Farina, with light N.W. to S.W. winds, rising barometers, and rough sea. Squally in places in and near the coast. Cape Borda and Robe, 0·02 inch rainfall. Extremes of barometers and temperature: Eucla, 30·24 and 68°; M'Donnell Bay, 29·91; and Cape Borda, 58°.

Victoria.—Generally fine and cool, with clouds in places, light N. to W. winds, risen barometers, and moderate to rough sea. Squally on the coast. Rainfall: Portland, 0·02; Horsham, 0·01. Extremes of barometers and temperature: Horsham, 30·07; Omeo, 29·92 and 68°; Hamilton, 55°.

Tasmania.—Generally fine, but cloudy, with strong westerly winds, risen barometers, and moderate to rough sea. Squally on the east coast. Passing showers at Southport. Extremes of barometers and temperature: Low Heads, 29·82; Hobart, 29·55 and 62°; Circular Heads, 56°.

New Zealand.—Generally fine, with N.W. to W. winds; in extreme north, calm. Barometers: Russell, 30·04; Wellington, 30·1; and Bluff, 29·8.

New South Wales.—Generally cloudy and gloomy, with light variable winds, risen barometers, and smooth sea. Raining more or less heavily at scattered places in the Darling watershed, principally near the range. Rain has fallen in the eastern division generally, principally in south parts, and heaviest in the districts around Dubbo, Mudgee, and Orange, where eight stations report from 1 to 1¾ inch fallen. Moree and Walgett report thunderstorms during the night. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·17; Eden, 29·83; Clarence, 79°; and Mount Victoria, 62°. Reading of the standard barometer, at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m., 29·934. Extra stations.—Lake Cudgellico, max. 72°, min. 64°, calm and threatening; Hill End, rainfall 1·30 inch. For further particulars see map.

Queensland.—Generally fine, clear, and sultry, with variable winds, slightly risen barometers, and moderate sea. Extremes of barometers and temperature: Rockhampton, 30·15; Cooktown, 87°; Townsville, 29·77; and Cape Moreton, 74°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.N.W., 36, squally, moderate sea, temperature 61°; Cape Otway, N.W., 42, threatening rain, rough sea, temperature 61°; Wilson's Promontory, W., 36, squally, moderate sea, temperature 61°.

New South Wales.—Menindie, W., 14, like rain, temperature 70°; Wentworth, W., 14, fine, warm, temperature 67°; Deniliquin, W.S.W., cloudy, temperature 73°; Eden, S.E., 14, fine, smooth sea, temperature 64°; Cape St. George, N., 14, like a change, smooth sea, temperature 72°; Sydney, S., 10, cloudy, smooth sea, temperature 78°; Newcastle, S.W., 10, fine, smooth sea, temperature 83°; Port Macquarie, N.N.E., 42, sultry, cloudy, moderate sea, temperature 80°; Clarence River, N.E., 30, fine, rough sea, temperature 77°; Walgett, calm, hot, sultry, temperature 79°; Dubbo, N., rainy looking, temperature 71°; Goulburn, N.W., showery, temperature 71°.

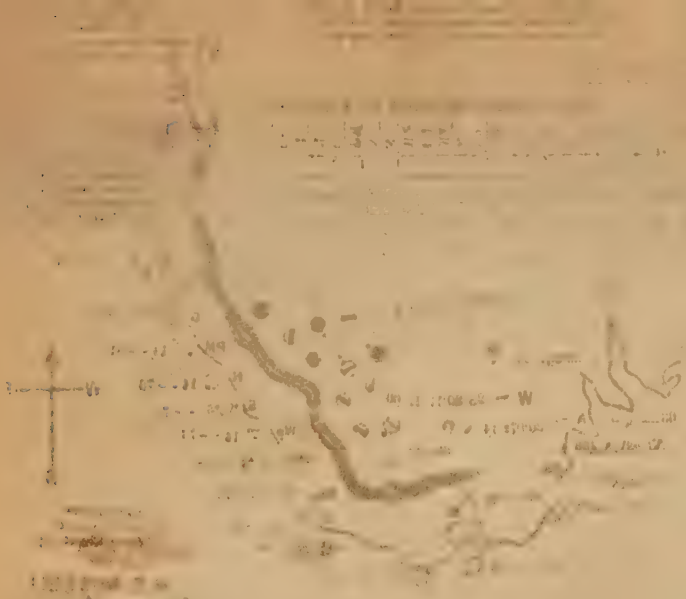
HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 16 feet. Barwon: At Mogil Mogil, 24 feet; at Walgett, 38 feet. Namoi: At Walgett, 11 feet 6 inches. Culgoa: At Goodooga, 8 feet. Darling: At Brewarrina, 27 feet 6 inches; at Bourke, 30 feet; at Louth, 21 feet; at Tilpa, 27 feet; at Wilcannia, 29 feet 2 inches; at Menindie, 28 feet 6 inches; at Pooncarie, 23 feet 6 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 7 feet 6 inches; at Wagga, 8 feet 3 inches; at Hay, 7 feet 5 inches; at Balranald, 12 feet 11 inches. Murray: At Albury, 7 feet 11 inches; at Euston, 13 feet 8 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 8.

Sun rises at 4.55, sets at 6.33; Moon, 3.26 p.m., 2.49 a.m.; Mercury, 5.59 a.m., 8.22 p.m.; Venus, 4.43 a.m., 6.1 p.m.; Mars, 7.14 a.m., 9.41 p.m.; Jupiter, 3.51 a.m., 4.2 p.m.; Saturn, 11.25 p.m., 9.27 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 8: 5.21 a.m., 5.48 p.m.

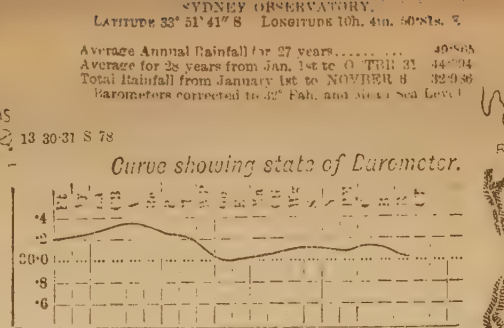


Albury	b	75 49	0
Armidale	b	84 52	0·12
Balranald	b	89 49	0
Bathurst	b	70 44	1·03
Bend'm'r	b	78 46	1·04
Bodalla ..	b	81 49	0
Bourke ..	b	79 56	0
Brw'rrina	b	84 43	0
Bundarra	b	78 55	0·60
C'md'n H	b	85 60	0
C. St. Geo	b	70 56	0
Carcoar ..	b	70 41	0·92
Casino ..	b	88 60	0·12
Cassilis ..	b	73 50	1·43
Clarence	b	85 68	0·09
C'nd'b'lin	b	84 42	1·48
Cooma ..	b	78 45	0
Coonab'n	b	80 44	0·58
Cowra ..	b	91 50	0·54
Denilliq'n	b	81 49	0
Dubbo ..	b	76 47	0·63
Eden	b	72 54	0
Euston ..	b	86 69	0
Forbes ..	b	— 54	0·52
Gl'n Inn's	b	80 51	0·90
Goulburn	b	73 44	0·31
Grafton ..	b	92 62	0·63
Gulgong	b	72 52	0·81
Gunned'h	b	81 58	0
Hay	b	79 52	0
Inverell ..	b	80 53	1·59
Kiandra	b	72 39	0
Lismore	r	83 66	0·01
Maitland	b	92 46	0
Marsdens	b	75 56	0·98
Menindie	b	75 62	0
Molong ..	b	81 59	1·02
M'r'ng'r'll	b	78 53	2·02
Moree ..	b	84 57	0·52
Moruya ..	b	62 57	0
Moss Vale	h	71 53	0
Mt. Hope	b	72 —	0
M. Vict'ria	b	72 47	1·05
Mudgee	b	80 45	0·44
M'rr'mb'h	b	75 50	2·09
M'rr'ndi	b	73 57	0·48
Mus'lbr'k	b	81 51	0·90
Narrabri	b	85 57	0·49
Newcastle	b	75 59	0·95
Orange ..	b	66 48	1·25
Picton ..	b	77 52	0·76
P. M'q'rie	b	76 56	0
P. St'ph'n	b	74 58	0·96
Q'nbeyan	b	73 51	0·16
Quirindi	b	84 55	0·50
Singleton	b	80 61	0·94
SYDNEY ..	h	73 60	0·68
Tamw'rth	b	75 50	0·04
Taralga ..	b	76 47	0·31
Taree	b	79 59	0·81
T'nt'rfield	b	89 68	2·43
Wagga ..	b	— 47	0
Walcha ..	b	68 46	0·33
Walgett ..	b	78 57	0
Warrah ..	b	80 52	0·43
W'ntw'rth	b	80 32	0
W'll'ng'ng	b	74 61	0
Young ..	b	81 64	0·92

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years..... ... 49·565
Average for 28 years from Jan. 1st to OCTOBER 31 44·204
Total Rainfall from January 1st to NOVEMBER 8 32·036
Barometers corrected to 32° Fah. and Mean Sea Level



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. In and the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light S. to E. winds, fallen barometer, and smooth to moderate sea. No rain fallen. Extremes of barometers and temperature: Perth, 30·20; Cossack, 29·96 and 82°; Esperance Bay, 66°.

South Australia.—Generally fine, with light S.W. winds and calms, risen barometers, and moderate sea. Scattered clouds on parts of the coast east of Cape Borda. Rainfall: Port Darwin, 0·62; Daly Waters, Robe, and M'Donnell Bay. 0·03 inch. Extremes of barometers and temperature on the coast: Adelaide, 30·37 and 56°; Eucla, 30·27 and 71°. In Northern Territory: Daly Waters, 30·10 and 88°; Port Darwin, 29·92 and 85°.

Victoria.—Generally fine, with fresh westerly winds, risen barometers, and rough sea. Passing showers at Portland, very high sea at Cape Otway, and squally along the coast; a few points of rain fallen at scattered places. Extremes of barometers and temperature: Horsham, 30·27; Wilson's Promontory, 30·05; Hamilton, 55°; and Omeo, 65°.

Tasmania.—Generally fine, with fresh westerly winds, risen barometers, and moderate to rough sea; passing showers and squally at Southport. Extremes of barometers and temperature: Circular Heads, 30·05; Hobart, 29·85 and 53°; Falmouth, 61°.

New Zealand.—Generally fine, with strong N.W. to W. winds. Barometers: Russell, 30·1; Gisbourn, 29·6; Wellington, 29·9; and Bluff, 29·2.

New South Wales.—Generally fine, clear, and warm, with light variable winds and calms, rising barometers, and smooth sea. Showery at Lismore; rough sea at Gabo Island. During the last 48 hours rain has fallen in the Eastern division; heaviest along the range, where 10 scattered stations report falls of from one to over two inches. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·41; Gabo Island, 29·98; Clarence Heads, 78°; and Mount Victoria, 60°. Reading of the standard barometer, at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m., 30·092. Extra stations.—Camden, rainfall, 1·9 inch; Lake Cudgellico, max. 82°, min. 58° and 0·75 inch, fair. For further particulars see map.

Queensland.—Fine, with light S.E. wind, and moderate to rough sea. Rainfall, 0·21; Cape Moreton, 0·20; Brisbane, 0·06. Extremes of barometers and temperature: Brisbane, 30·13; Townsville, 29·70; Cooktown, 88°; and Cape Moreton, 72°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 34, fine but cloudy, high sea, temperature 63°; Cape Otway, W.N.W., 40, fine, high sea, temperature 61°; Melbourne, S.W., 13, fine, temperature 66°; Cape Schanck, W., 8, fine but cloudy, rough sea, temperature 63°; Wilson's Promontory, W., 34, fine and squally, rough sea, temperature 60°.

New South Wales.—Menindie, calm, fine and clear, temperature 73°; Wentworth, W., fine, temperature 71°; Deniliquin, calm, fine, temperature 76°; Eden, N.E., 14, fine, smooth sea, temperature 67°; Cape St. George, E., 42, fine, smooth sea, temperature 69°; Newcastle, S., 28, fine, smooth sea, temperature 73°; Port Macquarie, E., 14, fine, smooth sea, temperature 79°; Clarence River, S.W., fine, smooth sea, temperature 77°; Walgett, S.E., fine, temperature 80°; Dubbo, S.W., fine, temperature 72°; Goulburn, N.W., fine, temperature 70°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

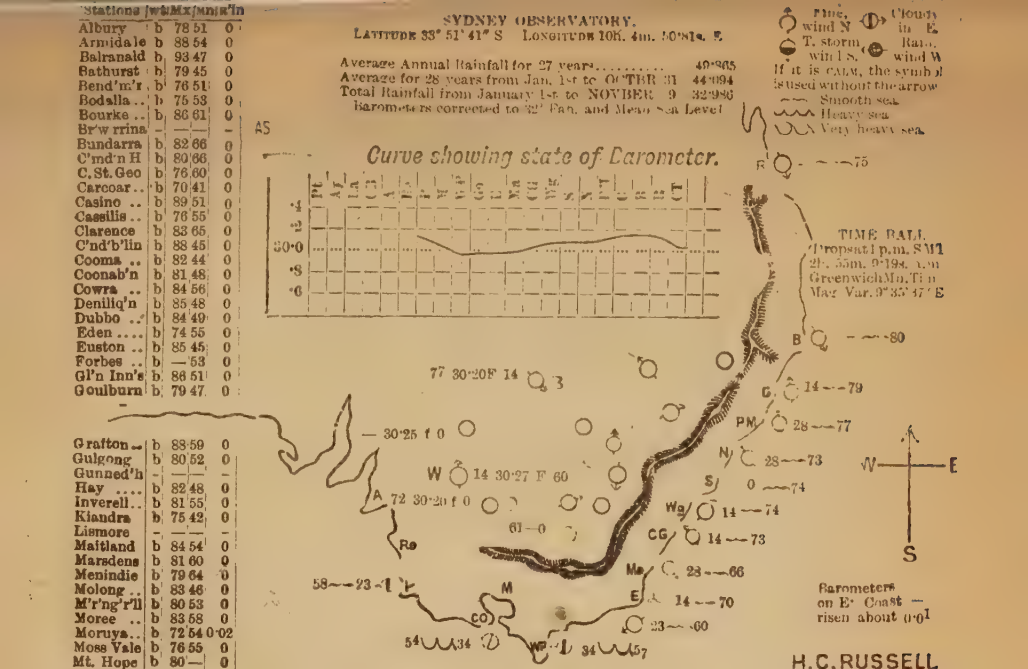
Macintyre: At Mungindi, 15 feet. Barwon: At Mogil Mogil, 23 feet; at Walgett, 36 feet. Namoi: At Walgett, 12 feet. Culgoa: At Goodooga, 8 feet 6 inches. Darling: At Brewarrina, 29 feet; at Bourke, 31 feet 3 inches; at Louth, 25 feet 3 inches; at Tilpa, 28 feet; at Wilcannia, 29 feet; at Menindie, 28 feet 6 inches; at Pooncarie, 23 feet 7 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 8 feet 6 inches; at Wagga, 7 feet 9 inches; at Hay, 7 feet 10 inches; at Balranald, 12 feet 6 inches. Murray: At Albury, 7 feet 3 inches; at Euston, 13 feet 8 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 9.

Sun rises at 4.54, sets at 6.34; Moon, 4.19 p.m., 3.20 a.m.; Mercury, 5.39 a.m., 8.24 p.m.; Venus, 4.43 a.m., 6.3 p.m.; Mars, 7.13 a.m., 9.40 p.m.; Jupiter, 3.18 a.m., 4.34 p.m.; Saturn, 11.21 p.m., 9.23 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 9: 6.15 a.m., 6.38 p.m.

Stations	W	Mx	Mn	R'in
Albury	b	78	51	0
Armidale	b	88	54	0
Balranald	b	93	47	0
Bathurst	b	79	45	0
Bend'm'r	b	76	51	0
Bodalla ..	b	75	53	0
Bourke ..	b	86	61	0
Br'w rrina	–	—	—	–
Bundarra	b	82	66	0
C'md'n H	b	80	66	0
C. St. Geo	b	76	60	0
Carcoar ..	b	70	41	0
Casino ..	b	89	51	0
Cassilis ..	b	76	55	0
Clarence	b	83	65	0
C'nd'b'lin	b	88	45	0
Cooma ..	b	82	44	0
Coonab'n	b	81	48	0
Cowra ..	b	84	56	0
Deniliq'n	b	85	48	0
Dubbo ..	b	84	49	0
Eden	b	74	55	0
Euston ..	b	85	45	0
Forbes ..	b	—	53	0
Gl'n Inn's	b	86	51	0
Goulburn	b	79	47	0
Grafton ..	b	88	59	0
Gulgong	b	80	52	0
Gunned'h	–	—	—	–
Hay	b	82	48	0
Inverell ..	b	81	55	0
Kiandra	b	75	42	0
Lismore	–	—	—	–
Maitland	b	84	54	0
Marsdens	b	81	60	0
Menindie	b	79	64	0
Molong ..	b	83	46	0
M'r'ng'r'll	b	80	53	0
Moree ..	b	83	58	0
Moruya ..	b	72	54	0·02
Moss Vale	b	76	55	0
Mt. Hope	b	80	—	0
M. Vict'ria	b	82	47	0
Mudgee	b	85	47	0
M'rr'mb'h	b	77	50	0
M'rr'r'ndi	b	78	61	0
Mus'lbr'k	b	82	59	0
Narrabri	b	85	56	0
Newcastle	b	81	67	0
Orange ..	b	72	44	0
Picton ..	b	83	67	0
P. M'q'rie	h	80	59	0
P. St'ph'n	b	85	63	0
Q'nbeyan	b	77	53	0
Quirindi	b	93	57	0
Singleton	b	85	65	0
SYDNEY ..	h	78	63	0
Tamw'rth	b	83	53	0
Taralga ..	b	80	45	0
Taree	b	86	64	0
T'nt'rfield	b	85	73	0
Wagga ..	b	—	48	0
Walcha ..	b	76	47	0
Walgett ..	b	85	59	0
Warrah ..	b	81	71	0
W'ntw'rth	b	86	55	0
W'll'ng'ng	b	80	62	0
Young ..	b	85	46	0



Fine, Cloudy
wind N wind E
T. storm, Rain,
wind S. wind W
If it is CALM, the symbol is used without the arrow
Smooth sea
Heavy sea
Very heavy sea

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Generally fine and warm, with scattered clouds.

Victoria.—Cloudy, misty, and squally along the coast; fine and clear inland, with light westerly winds, fallen barometers, and rough but moderating sea; no rain fallen. Extremes of barometers and temperature: Horsham, 30·20; Wilson's Promontory, 29·98; Echuca, 69°; and Cape Otway, 54°.

New South Wales.—Fine, clear, and warm, throughout the colony, with light variable winds and calms, and smooth sea. The barometers have fallen slightly inland, but are almost steady on the coast. Moruya, with 0·02 inch rainfall, is the only station reporting rain fallen. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·27; Gabo Island, 29·97; Clarence Heads, 79°; and Cooma 48°. Reading of the standard barometer, at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m., 30·073. Extra stations.—Lake Cudgellico, max. 85°, min. 59°, calm, fine, and clear. For further particulars see map.

Queensland.—Generally fine, with light S.E. wind, risen barometers, and moderate sea. Rainfall: Cooktown, 0·04 inch. Extremes of barometers and temperature: Brisbane, 30·18; Townsville, 29·75; Cooktown, 86°; and Rockhampton, 75°.

3 P.M. OBSERVATIONS.

New South Wales.—Sydney, E., 10, very fine; temperature 81°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

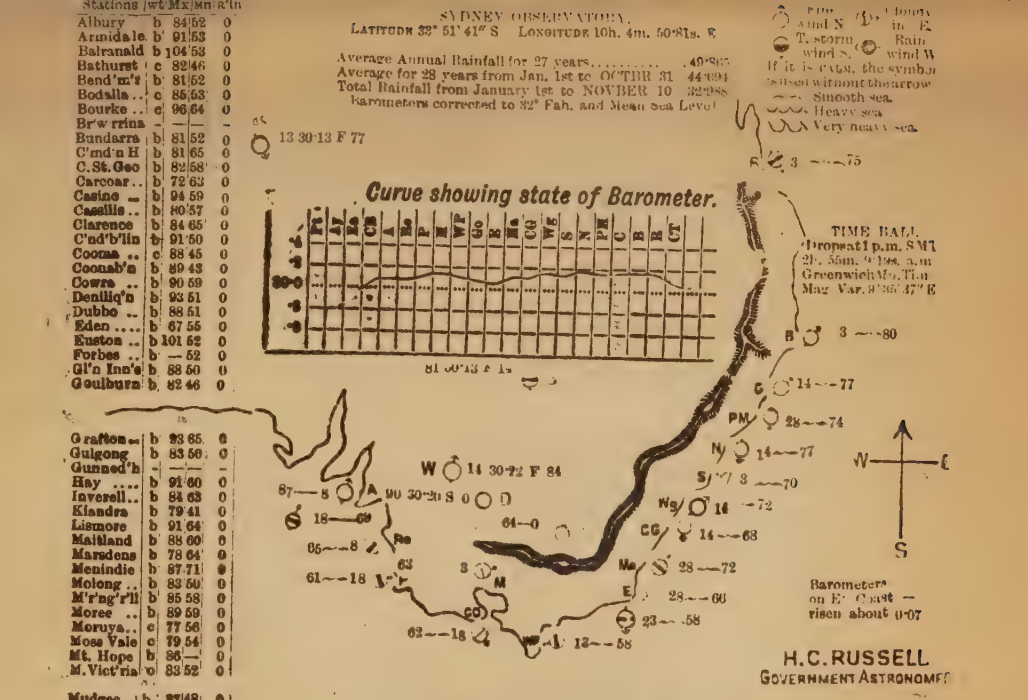
Macintyre: At Mungindi, 14 feet 6 inches Barwon: At Mogil Mogil, 21 feet; at Walgett, 35 feet. Namoi: At Walgett, 11 feet. Culgoa: At Goodooga, 8 feet 2 inches. Darling: At Brewarrina, 30 feet; at Bourke, 32 feet 5 inches; at Louth, 25 feet 11 inches; at Tilpa, 28 feet 8 inches; at Wilcannia, 29 feet 4 inches; at Menindie, 29 feet 4 inches; at Pooncarie, 23 feet; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 8 feet 6 inches; at Wagga, 7 feet 9 inches; at Hay, 8 feet; at Balranald, 12 feet 5 inches. Murray: At Albury, 6 feet 11 inches; at Euston, 13 feet 8 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 10.

Sun rises at 4.54, sets at 6.35; Moon, 5.16 p.m., 3.53 a.m.; Mercury, 6 a.m., 8.26 p.m.; Venus, 4.43 a.m., 6.5 p.m.; Mars, 7.12 a.m., 9.40 p.m.; Jupiter, 3.45 a.m., 4.31 p.m.; Saturn, 11.17 p.m., 9.19 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 10: 7 a.m., 7.21 p.m.

Stations	wt	Mx	Mn	R'fn
Albury	b	84	52	0
Armidale	b	91	53	0
Balranald	b	104	53	0
Bathurst	c	82	46	0
Bend'm'r	b	81	52	0
Bodalla ..	c	85	53	0
Bourke ..	c	96	64	0
Brw'rrina	-	—	—	-
Bundarra	b	81	52	0
C'md'n H	b	81	65	0
C. St. Geo	b	82	58	0
Carcoar ..	b	72	63	0
Casino ..	b	94	59	0
Casilla ..	b	80	57	0
Clarence	b	84	65	0
C'nd'b'lin	b	91	50	0
Cooma ..	c	88	45	0
Coonab'a	b	89	43	0
Cowra ..	b	90	59	0
Deniliq'n	b	93	51	0
Dubbo ..	b	88	51	0
Eden	b	67	55	0
Euston ..	b	101	52	0
Forbes ..	b	—	52	0
Gl'n Inn's	b	88	50	0
Goulburn	b	82	46	0
Grafton ..	b	93	65	0
Gulgong ..	b	83	56	0
Gunned'h	-	—	—	-
Hay	b	91	60	0
Inverell ..	b	84	63	0
Kiandra ..	b	79	41	0
Lismore ..	b	91	64	0
Maitland ..	b	88	60	0
Marsdens	b	78	64	0
Menindie	b	97	71	0
Molong ..	b	83	50	0
M'r'ng'r'll	b	85	58	0
Moree ..	b	89	59	0
Moruya ..	c	77	56	0
Moss Vale	c	79	54	0
Mt. Hope	b	86	—	0
M. Vict'ria	o	83	52	0
Mudgee	b	87	48	0
M'rr'mb'h	b	83	54	0
M'rr'ndi	b	81	59	0
Mus'br'k	b	91	52	0
Narrabri	b	91	51	0
Newcastle	b	88	69	0
Orange ..	o	75	47	0
Picton ..	b	85	50	0
P. M'q'rie	b	79	58	0
P. St'ph'n	c	87	60	0
Q'nbeyan	b	80	55	0
Quirindi	b	91	57	0
Singleton	b	82	65	0
Sydney ..	o	85	59	0
Tamw'rth	-	—	—	-
Taralga ..	b	82	47	0
Taree	h	91	63	0
T'nt'rfield	b	86	74	0
Wagga ..	b	—	53	0
Walcha ..	b	80	44	0
Walgett ..	b	94	61	0
Warrah ..	b	87	52	0
W'ntw'rth	b	95	61	0
W'll'ng'g	b	85	57	0
Young ..	c	90	51	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b. standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station, the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Cloudy at Albany, with smooth sea and a W. N. W. wind.

South Australia.—Fine generally and warm, with a light variable wind, the direction being chiefly between N. E. and N. W.; smooth sea on the coast; the only station which recorded rain this morning was Port Darwin, the amount being 0·06 of an inch.

Victoria.—Cloudy weather generally, smooth and moderate sea on coast; wind chiefly between S. E. and E. N. E.; blowing fresh at Portland, Cape Otway, and Wilson's Promontory on the coast; inland it is sultry at Echuca and Horsham.

Tasmania.—Cloudy at Falmouth and Hobart; 0·07 rain at the latter station, and weather still threatening. Light N. wind and fine at Low Head.

New Zealand.—Cloudy and showery at Russell, and fine at Gisborne, Wellington, and The Bluff. The average height of the barometer at the four stations is 29·7. A S.W. wind is blowing on the W. coast at the rate of 34 miles per hour.

New South Wales.—Fine weather generally throughout the colony, the only stations reporting cloudy weather are situated to the E. of dividing range; no rain at any of the stations; very light variable winds this morning, and smooth sea down the E. coast. Additional stations:—Coonamble, calm, fine, hot; Hill End, calm, fine; Wilcannia, calm, fine, clear. Lake Cudgellico, S.E., max. 80°, min. 55°, cloudy and warm.

Queensland.—Fine generally, with light wind from S.E. and N.E.; a moderate sea is reported on the coast, except at Townsville, where it is rather rough; 0·04 of rain at Cooktown.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, E.N.E., 18, fine, cloudy, hazy, slight sea, temperature 71°; Melbourne, S.W., 13, fine, temperature 70°; Cape Schanck, E.S.E., 8, overcast, hazy, smooth sea, temperature 63°; Wilson's Promontory, N.E., 13, fine, smooth sea, temperature 68°; Lakes' Entrance, E., 23, fine, hazy, temperature 66°.

New South Wales.—Menindie, calm, fine, hot, temperature 84°; Wentworth, S.W., fine, hot, temperature 90°; Deniliquin, calm, fine, hot, temperature 86°; Eden, S.S.E., 28, fine, smooth sea, temperature 62°; Moruya, S., fresh, fine, smooth sea, temperature 65°; Cape St. George, S., 14, fine, smooth sea, temperature 73°; Sydney, E.N.E., light, cloudy, sultry, smooth sea, temperature 73°; Newcastle, E., light, fine, no sea, temperature 73°; Port Macquarie, S.E., sultry, smooth sea, temperature 82°; Clarence River, N.E., fine, moderate sea, temperature 78°; Walgett, calm, fine, temperature 90°; Dubbo, calm, cloudy, temperature 75°; Goulburn, calm, fine, hot, temperature 72°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

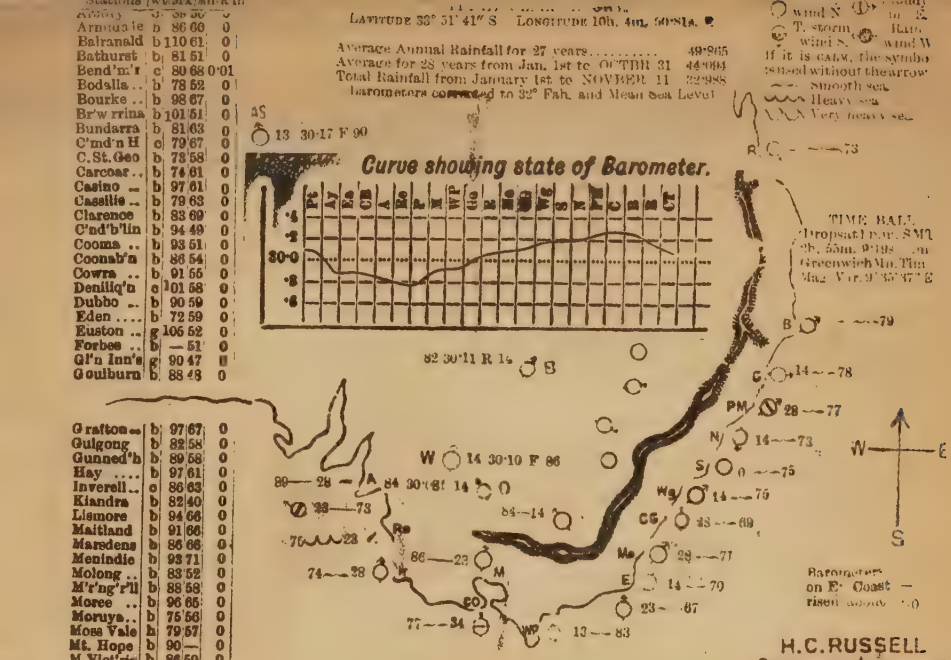
Macintyre: At Mungindi, 14 feet. Barwon: At Mogil, Mogil, 21 feet; at Walgett, 34 feet. Namoi: At Walgett, 10 feet. Culgoa: At Goedooga, 7 feet 8 inches. Darling: At Brewarrina, 30 feet; at Bourke, 33 feet; at Louth, 26 feet 6 inches; at Tilpa, 29 feet 4 inches; at Wilcannia, 29 feet 8 inches; at Menindie, 29 feet 4 inches; at Pooncarie, 22 feet 7 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 6 feet, falling; at Wagga, 7 feet 8 inches; at Hay, 8 feet 6 inches; at Balranald, 12 feet 5 inches. Murray: At Albury, 6 feet 6 inches; at Euston, 13 feet 7 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 11.

Sun rises at 4.53, sets at 6.36; Moon, 6.14 p.m., 4.23 a.m.; Mercury, 6 a.m., 8.27 p.m.; Venus, 4.42 a.m., 6.7 p.m.; Mars, 7.12 a.m., 9.39 p.m.; Jupiter, 3.41 a.m., 4.28 p.m.; Saturn, 11.13 p.m., 9.15 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 11: 7.42 a.m., 8.2 p.m.

Armidale	b	86 60	0
Balranald	b	110 61	0
Bathurst	b	81 51	0
Bend'm'r	c	80 68	0·01
Bodalla ..	b	78 52	0
Bourke ..	b	98 67	0
Br'w rrina	b	101 51	0
Bundarra	b	81 63	0
C'md'n H	c	79 67	0
C. St. Geo	b	78 58	0
Carcoar ..	b	74 61	0
Casino ..	b	97 61	0
Cassilis ..	b	79 63	0
Clarence	b	83 69	0
C'nd'b'lin	b	94 49	0
Cooma ..	b	93 51	0
Coonab'n	b	86 54	0
Cowra ..	b	91 55	0
Deniliq'n	c	101 58	0
Dubbo ..	b	90 59	0
Eden	b	72 59	0
Euston ..	g	106 52	0
Forbes ..	b	— 51	0
Gl'n Inn's	g	90 47	0
Goulburn	b	88 48	0
Grafton ..	b	97 67	0
Gulgong	b	82 58	0
Gunned'h	b	89 58	0
Hay	b	97 61	0
Inverell ..	c	86 63	0
Kiandra	b	82 40	0
Lismore	b	94 66	0
Maitland	b	91 66	0
Marsdens	b	86 66	0
Menindie	b	93 71	0
Molong ..	b	83 52	0
M'r'ng'r'll	b	88 58	0
Moree ..	b	96 65	0
Moruya ..	b	75 56	0
Moss Vale	h	79 57	0
Mt. Hope	b	90 —	0
M. Vict'ria	b	86 50	0
Mudgee	b	87 51	0
N'r'mb'h	b	86 56	0
M'r'r'ndi	b	78 66	0
Mus'br'k	b	96 63	0
Narrabri	b	90 57	0
Newcastle	b	81 69	0
Orange ..	b	77 58	0
Picton ..	b	85 50	0
P. M'q'rie	c	83 62	0
P. St'ph'n	c	89 64	0
Q'nbeyan	b	81 59	0
Quirindi	b	87 62	0
Singleton	b	81 71	0
SYDNEY ..	b	76 64	0
Tamw'rth	—	— —	—
Taralga ..	b	90 58	0
Taree	c	89 64	0
T'nt'rfield	g	87 70	0
Wagga ..	b	— 56	6
Walcha ..	b	79 49	0
Walgett ..	b	97 66	0
Warrah ..	b	85 58	0
W'ntw'rth	b	101 65	0
W'll'ng'ng	b	82 61	0
Young ..	b	93 51	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—P, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ck, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the east coast fine, with S.E. winds, in south cloudy, with westerly winds. Barometers have fallen; and the sea is smooth. No rain. Extremes of barometers and temperature: Perth, 30·15 and 61°; Cossack, 29·72; and Ashburton, 93°.

South Australia.—Generally hot, sultry, and dusty, with more or less clouds, fresh northerly winds, fallen barometers, and moderate to rough sea. Rainfall: Daly Waters, 0·60 inch. Extremes of barometers and temperature on the coast: Port Augusta, 29·92 and 93°; M'Donnell Bay, 29·80 and 57°. In Northern Territory: Daly Waters, 29·98 and 86°; Port Darwin, 29·82 and 91°.

Victoria.—Generally more or less clouded, with very hot northerly winds, fallen barometers, and moderate to rough sea; squally and sultry on the coast. Extremes of barometers and temperature: Omeo 30·13, Portland 29·85, Melbourne 86°, and Cape Schanck 66°.

Tasmania.—Generally fine but cloudy, with light variable winds, calms, fallen barometers, and moderate to rough sea. Extremes of barometers and temperature: Low Head 29·97, Southport 29·73 and 76°, Circular Heads 58°.

New Zealand.—Generally fine, with strong S.E. to S.W. winds; squally in extreme north. Barometers: Russell 30·2, Wellington 30·1, and Bluff 30·

New South Wales.—Generally fine, clear, and very hot, with light easterly wind, slightly risen barometers, and smooth sea. The only station reporting rain is Beendemeer, with 0·01 inch. Extremes of barometers and temperature, at 9 a.m.: Clarence Heads, 30·25; Gabo Island, 30·02; Hay, 87°; and Cooma, 65°. Reading of the standard barometer at Sydney corrected to 32° Fahr., and mean sea level at 9 a.m., 30·204. Additional stations:—Lake Cudgelligo, max. 84°, min. 59°, fine and clear. (For further particulars see map).

Queensland.—Generally fine with light N.E. to S.E. winds, risen barometers, and moderate sea. Showery at Cooktown, 0·40 inch fallen. Extremes of barometers and temperature:—Cape Moreton, 30·33 and 73°; Townsville, 29·75; and Cooktown, 90°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.W., 28, cloudy, with thunder, smooth sea, temperature 80°; Cape Otway, N.N.W., 34, hot wind and squally, smooth sea, temperature 88°; Melbourne, N.N.E., 13, cloudy hazy, temperature 92°; Cape Schanck, N.N.W., 8, cloudy, sultry, moderate sea, temperature 70°; Wilson's Promontory, N., 13, fierce hot wind, smooth sea, temperature 89°; Lakes' Entrance, N., 13, cloudy, sultry, temperature 81°.

New South Wales.—Menindie, N.W., cloudy, hot, temperature 87°; Wentworth, N.W., fine, temperature 85°; Deniliquin, calm, fine, warm, temperature 98°; Eden, N.E., 14, fine, smooth sea, temperature 73°; Moruya, N.E., 28, fine, moderate sea, temperature 72°; Cape St. George, N., 42, fine, smooth sea, temperature 73°; Sydney, E.N.E., 24, fine, hot, smooth sea, temperature 74°; Newcastle, N.E., 14, fine, smooth sea, temperature 75°; Port Macquarie, N.N.E., 28, cloudy, smooth sea, temperature 79°; Clarence River, N.E., fine, smooth sea, temperature 80°; Walgett, N.E; Dubbo, S.E., fine, temperature 74°: Goulburn, N., fine, temperature 74°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 14 feet. Barwon: At Mogil, Mogil, 18 feet; at Walgett, 33 feet. Namoi: At Walgett, 9 feet. Culgoa: At Goodooga, 6 feet. Darling: At Brewarrina, 29 feet; at Bourke, 33 feet 8 inches; at Louth, 27 feet; at Tilpa, 30 feet; at Wilcannia, 30 feet; at Menindie, 28 feet 3 inches; at Pooncarie, 23 feet 10 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 4 feet 9 inches; at Wagga, 7 feet; at Hay, 8 feet 9 inches; at Balranald, 12 feet. Murray: At Albury, 5 feet 11 inches; at Euston, 15 feet 7 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 12.

Sun rises at 4.52, sets at 6.37; Moon, 7.12 p.m., 5.4 a.m.; Mercury, 6.1 a.m., 8.29 p.m.; Venus, 4.42 a.m., 6.9 p.m.; Mars, 7.11 a.m., 9.39 p.m.; Jupiter, 3.38 a.m., 4.25 p.m.; Saturn, 11.9 p.m., 9.11 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 12: 8.21 a.m., 8.42 p.m.

Albury	c	89 56	0	—
Armidale	c	86 58	0·39	
Balranald	c	107 60	0	
Bathurst	b	87 56	0	
Bend'm'r	g	78 55	0	
Bodalla	b	86 56	0	
Bourke	b	101 64	0	
Brewarrina	b	107 57	0	
Bundarra	g	82 59	0	
C'md'n H	g	79 69	0	
C. St. Geo	b	77 65	0	
Carcoar	b	74 65	0	
Casino	b	83 55	0	
Cassilis	b	82 66	0	
Clarence	b	83 66	0	
C'nd'b'lin	c	95 57	0	
Cooma	c	92 51	0	
Coonab'n	b	89 62	0	
Cowra	b	93 65	0	
Deniliq'n	b	102 57	0	
Dubbo	b	94 62	0	
Eden	b	76 60	0	
Euston	g	103 76	0	
Forbes	b	— 54	0	
Gl'n Inn's	c	83 56	0	
Goulburn	g	91 32	0	
Grafton	g	91 60	0	
Gulgong	b	85 61	0	
Gunned'h	b	90 66	0	
Hay	c	97 73	0	
Inverell	b	86 59	0	
Kiandra	c	84 48	0	
Lismore	b	86 63	0	
Maitland	b	92 62	0	
Marsdens	c	89 71	0	
Menindie	b	95 74	0	
Molong	b	86 53	0	
M'r'ng'r'll	c	91 63	0	
Moree	b	92 65	0	
Moruya	b	85 60	0	
Moss Vale	c	83 63	0	
Mt. Hope	g	91 —	0	
M. Vict'ria	b	88 60	0	
Mudgee	b	90 56	0	
W'rr'mb'h	b	85 59	0	
M'rr'ndi	b	83 67	0	
Mus'lbr'k	c	92 61	0·60	
Narrabri	b	90 59	0	
Newcastle	b	80 67	0	
Orange	b	81 56	0	
Picton	h	85 59	0	
P. M'q'rie	c	80 65	0	
P. St'ph'n	c	83 63	0	
Q'nbeyan	b	82 60	0	
Quirindi	c	92 62	0	
Singleton	b	80 71	0	
Sydney	b	80 67	0	
Tamw'rth	b	90 68	0·34	
Taralga	b	86 55	0	
Taree	b	88 66	0	
T'nt'rfield	g	85 70	0	
Wagga	b	— 64	0	
Walcha	c	80 50	0·65	
Walgett	b	98 71	0	
Warrah	b	89 59	0	
W'ntw'rth	g	100 78	0	
W'll'ng'ng	b	81 67	0	
Young	b	92 59	0	

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 6·6s. E.

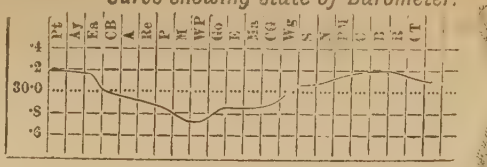
Average Annual Rainfall for 27 years..... .. 49·405

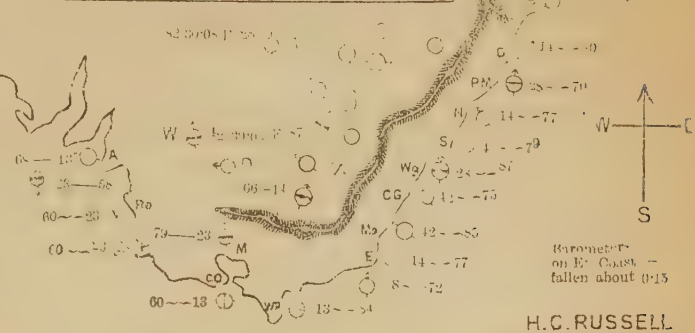
Average for 28 years from Jan. 1st to OCTOBER 31 44·004

Total Rainfall from January 1st to NOVEMBER 12 52·489

Barometers corrected to 32° Fah. and Mean Sea Level.

Curve showing state of Barometer.





Barometers on E. Coast — fallen about 0·15

H. C. RUSSELL,
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:— Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In south parts, fine and clear, with light southerly winds and smooth sea; barometers ranging from 30·13 to 30·18, and the temperature 62°.

South Australia.—Generally fine, with scattered clouds in places, light south-westerly winds, risen barometers, and moderate seas. In north parts warm, but cool south of Burra. Extremes of barometers and temperature on the coast:—Eucla, 30·18 and 67°; M'Donnell Bay, 29·82 and 58°. In Northern Territory: Daly Waters, 29·99 and 89°; Port Darwin, 29·86 and 89°.

Victoria.—Generally cloudy and threatening, with light N. to W. winds, fallen barometers, and smooth sea; hot and sultry in places; fierce hot wind blowing at Wilson's Promontory; strong wind in squalls at Melbourne; and thunderstorms at Horsham, Ballarat, and Hamilton. Light rain fallen in S.W. parts. Extremes of barometers and temperature: Omeo 29·95, Wilson's Promontory 29·69, and 84°, Portland 60°.

Tasmania.—Generally cloudy and unsettled, with light N.E. to S.E. winds, fallen barometers, and smooth sea. Lightning last night at Low Heads. Extremes of barometers and temperature: Low Head 29·71, Hobart 29·62 and 78°, Southport 60°.

New Zealand.—Generally fine. In north parts calm, in south strong N.W. wind. Barometers: Russell 30·5, Wellington 30·1, and Bluff 29·6.

New South Wales.—Generally fine, and hot, with clouds in scattered places, light northerly winds, fallen barometers, and smooth sea. Light rain has fallen at a few scattered places on or near the range. At 8 a.m. a slight thunderstorm passed over Albury, and from 1 to 3 p.m. several passed over Sydney. Extremes of barometers and temperature, at 9 a.m.: Clarence Heads, 30·17; Cape St. George, 29·83; Wentworth, 87°; and Cooma, 59°. Reading of the standard barometer at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m., 30·052. Extra stations:—Lake Cudgellico, max. 90°, min. 72°, and fine. (For further particulars see map).

Queensland.—Generally fine, with light N.E. to S.E. winds and moderate sea. Squally, with rough sea, north of Townsville. Extremes of barometers and temperature:—Brisbane, 30·21; Cape Moreton, 73°; Townsville, 29·81 and 82°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.S.W., 28, cloudy, smooth sea, temperature 62°; Cape Otway, W.N.W., 34, cloudy and gloomy, smooth sea, temperature 58°; Melbourne, S.S.W., 18, cloudy and threatening, temperature 61°; Cape Schanck, W.S.W., 23, cloudy, rough, temperature 70°; Wilson's Promontory, W.N.W., 28, cloudy and sultry, smooth sea, temperature 64°; Lakes' Entrance, N., 13, gloomy and threatening, temperature 80°.

New South Wales.—Wentworth, S.W., 14, hot, temperature 84°; Deniliquin, calm, cloudy, temperature 85°; Eden, N.W., 14, hot, smooth sea, temperature 70°; Moruya, N.E., 14, gloomy, moderate sea, temperature 83°; Cape St. George, N.W., 28, cloudy, smooth sea, temperature 76°; Sydney, N.E., 10, passing thunderstorms and showers, temperature 72°; Newcastle, N.W., 14, fine, smooth sea, temperature 86°; Port Macquarie, W.N.W., 42, hazy, smooth sea, temperature 77°; Clarence River, N.E., 14, dull, smooth sea, temperature 77°; Dubbo, N.W., 28, cloudy, temperature 80°; Goulburn, N., 14, dull, temperature 76°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 14 feet 6 inches. Barwon: At Mogil Mogil, 18 feet; at Walgett, 32 feet. Namoi: At Walgett, 8 feet. Culgoa: At Goodooga, 5 feet 2 inches. Darling: At Brewarrina, 28 feet 6 inches; at Bourke, 34 feet 1 inch; at Louth, 27 feet 9 inches; at Tilpa, 30 feet 6 inches; at Wilcannia, 30 feet 6 inches; at Menindie, 28 feet 2 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 4 feet 6 inches; at Wagga, 5 feet 9 inches; at Hay, 5 feet 10 inches; at Balranald, 11 feet 10 inches. Murray: At Albury, 5 feet 9 inches; at Euston, 12 feet 7 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 13.

Sun rises at 4.51, sets at 6.38; Moon, 8.11 p.m., 5.41 a.m.; Mercury, 6.1 a.m., 8.31 p.m.; Venus, 4.42 a.m., 6.11 p.m.; Mars, 7.10 a.m., 9.38 p.m.; Jupiter, 3.35 a.m., 4.22 p.m.; Saturn, 11.5 p.m., 9.7 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 13: 9.2 a.m., 9.22 p.m.

Western Australia.—In south parts, fine and clear, with light southerly winds and smooth sea; barometers ranging from 30·13 to 30·18, and the temperature 62°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.S.W., 28, clear; smoo

SYDNEY OBSERVATORY.

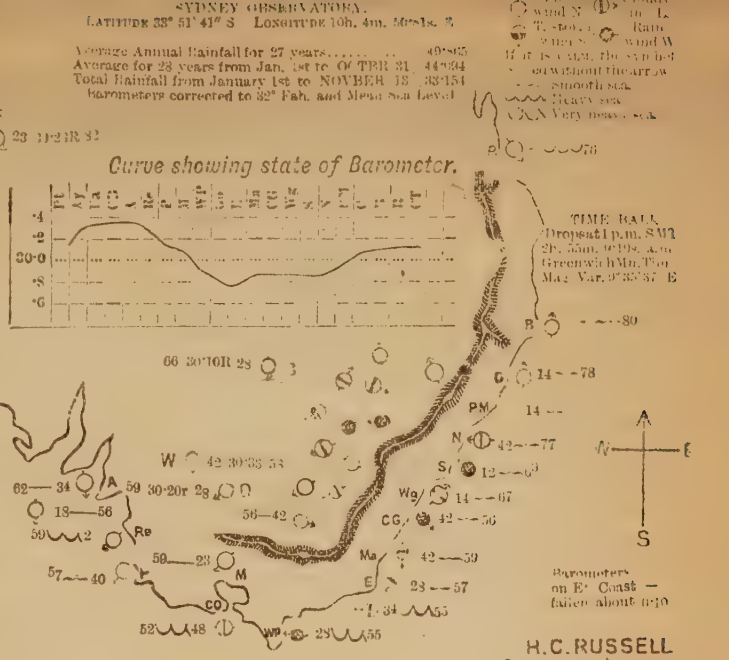
LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50sec.s. E.

Average Annual Rainfall for 27 years..... ... 49·865
Average for 28 years from Jan. 1st to OCTBER 31 44·564
Total Rainfall from January 1st to NOVBER 18 33·154
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.

TIME BALL
Drops at 1 p.m. SMT
2h. 55m. 0·19s. A.m.
Greenwich Mn. Time
Mag. Var. 9° 35′ 57″ E

Albury	b	81	52	0·20
Armidale	b	88	60	0
Balranald	b	100	48	0
Bathurst	r.	83	55	0·32
Bend'm'r	g	80	55	0
Bodalla..	r	86	54	0·60
Bourke ..	b	99	65	0
Br'w rrina	c	107	59	0
Bundarra	c	77	60	0
C'md'n H	b	80	66	0
C.St.Geo	r	88	55	0·32
Carcoar..	g	78	66	0·49
Casino ..	b	87	54	0
Cassilis..	o	82	66	0
Clarence	b	83	66	0
C'nd'b'lin	b	91	45	0·28
Cooma ..	c	84	49	0·17
Coonab'n	g	86	58	0·02
Cowra ..	o	88	60	0·50
Deniliq'n	c	96	46	0
Dubbo ..	r	89	54	0·22
Eden	u	91	52	0·36
Euston ..	b	100	48	0
Forbes ..	b	—	53	0·34
Gl'n Inn's	c	90	51	0
Goulburn	g	87	52	0·23
Grafton..	b	91	53	0·14
Gulgong	r	88	61	0
Gunned'h	c	98	64	0·02
Hay	b	94	51	0
Inverell..	b	81	58	0·70
Kiandra	c	62	44	0
Lismore	b	87	61	0
Maitland	c	96	63	0·15
Marsdens	b	88	61	0·06
Menindie	b	100	58	0·35
Molong ..	r	85	56	0·19
M'r'ng'r'll	b	88	58	0
Moree ..	b	94	61	0·12
Moruya..	g	93	54	0·12
Moss Vale	u	83	61	0·15
Mt. Hope	b	94	—	0·22
M.Vict'ria	r	81	59	0
Mudgee	r	90	56	0·10
W'rr'mb'h	c	82	57	0·45
M'rr'ndl	r	79	63	0
Mus'br'k	g	95	63	0
Narrabri	g	90	58	0
Newcastle	c	91	69	0
Orange ..	r	81	53	0·45
Picton ..	u	83	63	0
P. M'q'rie	h	78	62	0
P. St'ph'n	g	85	63	0
Q'nbeyan	c	81	61	0·70
Quirindi	g	85	61	0
Singleton	b	90	71	0
SYDNEY ..	r	90	70	0·17
Tamw'rth	–	—	—	0
Taralga ..	r	79	51	0·52
Taree	b	90	65	0
T'nt'rfield	b	81	71	0
Wagga ..	b	—	41	0·04
Walcha ..	b	79	56	0
Walgett..	g	96	71	0
Warrah ..	r	85	54	0
W'ntw'rth	b	100	51	0
W'll'ng ng	c	94	68	0·07
Young ..	o	87	54	0·22



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; r, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, astly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay fine weather, with light N.E. winds and moderate sea; barometer, 30·18, and temperature 62°.

South Australia.—Generally fine and cool, with light southerly winds, risen barometers, and moderate to rough sea; scattered clouds on and near the coast, squally in south-east parts, showery at M'Donnell Bay. Extremes of barometers and temperature on the coast:—Cape Borda, 30·34 and 56°; M'Donnell Bay, 30·20; and Eucla, 66°. In Northern Territory: Daly Waters, 30·01 and 85°; Port Darwin, 29·87 and 88°.

Victoria.—Generally threatening and gloomy, with light passing showers, strong S. W. to S. winds, and rough sea; squally on the coast. Rainfall: Cape Schanck, 0·45; Omeo, 0·70 inch. Extremes of barometers and temperature: Horsham, 30·18 and 63°; Wilson's Promontory, 29·85 and 55°

Tasmania.—Generally cloudy and unsettled, with fresh westerly winds, risen barometers, and smooth sea; showery at Circular Head. 0·06 inch fallen. Extremes of barometers and temperature: Circular Head, 29·81 and 55°; Falmouth, 29·61 and 62°

New Zealand.—Fine in north, with N.E. wind, gloomy in south with strong N.W. wind. Barometers: Russell 30·4, Wellington 30·0, and Bluff 29·7.

New South Wales.—Generally unsettled, with clouds and light rain in the eastern division of the colony, principally in the districts about Dubbo, Orange, and Mount Victoria. Light rain has fallen in south parts generally, heaviest along the range. The winds generally are fresh from S.E. to S.W.; barometers on the coast have fallen slightly, but they are rising fast in west parts; the sea is smooth along the coast, but rough off Gabo Island. Dubbo reports thunderstorm at 9 a.m.; and Bega (yesterday) had some from W. and N.N.W., giving 0·85 inch rain. Reading of the standard barometer at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m., 29·829. Extra stations:—Lake Cudgellico, max. 70°, min. 52°, and fine; Coonamble, raining slightly; Hill End, raining steadily, 0·78 inch fallen; Gabo Island, 0·64 inch rain. (For further particulars see map.)

Queensland.—Generally fine, with northerly winds in south, and S.E. winds in north parts; fallen barometers, and moderate to rough sea. Heavy showers from S.E. at Cooktown, 0·49 inch fallen. Extremes of barometers and temperature:—Rockhampton, 30·09; Townsville, 29·72 and 83°; Cape Moreton, 73°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 34, passing showers, smooth sea, temperature 59°; Cape Otway, S.W., 48, squally, mist. Slight sea, temperature 55°; Wilson's Promontory, S.W., 48, overcast, squally, showery, rough sea, temperature 54°.

New South Wales.—Menindie, S.W., fine, cool, temperature 71°; Wentworth, S., clear, fine, temperature 67°; Deniliquin, calm, fine, cool, temperature 73°; Eden, S.W., 42, like rain, smooth sea, temperature 65°; Moruya, E.N.E., 14, thunderstorm passing, smooth sea, temperature 64°; Cape St. George, S., strong, cloudy, smooth sea, temperature 64°; Sydney, S., fresh, fine, smooth sea; Newcastle, S., strong, cloudy, smooth sea, temperature 68°; Port Macquarie, N.N.E., 28, sultry, smooth sea, temperature 76°; Clarence River, N.E., fresh, fine, smooth sea, temperature 79°; Walgett, S.S.E., fine, temperature 70°; Dubbo, S.W., 14, fine, temperature 72°; Goulburn, N.W., strong, fine, temperature 68°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 15 feet. Barwon: At Mogil Mogil, 16 feet; at Walgett, 31 feet. Namoi: At Walgett, 8 feet. Culgoa: At Goodooga, 4 feet 6 inches. Darling: At Brewarrina, 28 feet 6 inches; at Bourke, 34 feet 8 inches; at Louth, 28 feet 6 inches; at Tilpa, 31 feet; at Wilcannia, 30 feet 6 inches; at Menindie, 28 feet 1 inch; at Pooncarie, 23 feet 10 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 4 feet; at Wagga, 5 feet 5inches; at Hay, 8 feet 10 inches; at Balranald, 11 feet 10 inches. Murray: At Albury, 5 feet; at Euston, 13 feet 7 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 15.

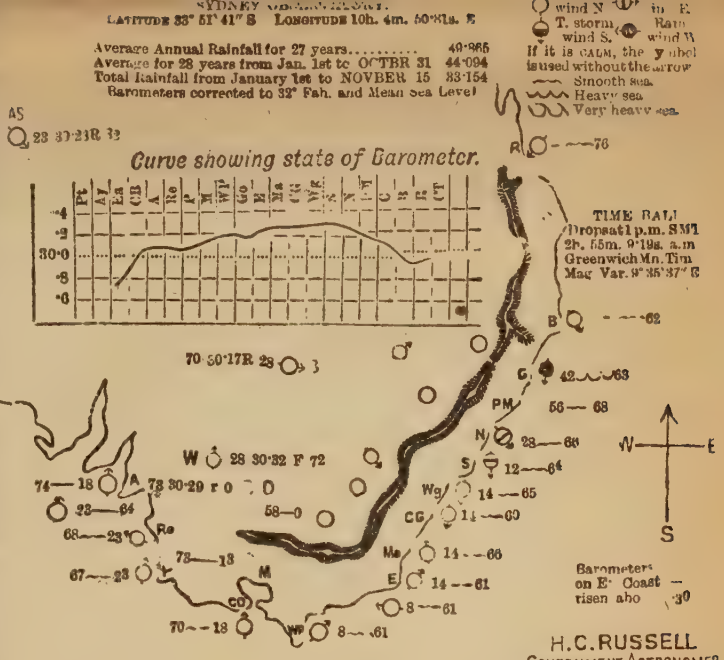
Sun rises at 4.50, sets at 6.40; Moon, 10.5 p.m., 7.22 a.m.; Mercury, 6.2 a.m., 8.32 p.m.; Venus, 4.42 a.m., 6.16 p.m.; Mars, 7.9 a.m., 9.37 p.m.; Jupiter, 3.28 a.m., 4.16 p.m.; Saturn, 10.57 p.m., 8.59 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 15: 10.22 a.m., 10.48 p.m.

Armidale	b	75	—	0·73
Balranald	b	87	47	0
Bathurst	b	64	40	0·03
Bend'm'r	c	65	51·	0
Bodalla..	b	78	57	0
Bourke ..	b	78	57	0
Br'w rrina	b	78	42	0
Bundarra	b	77	52	0
C'mdn H	c	83	62	0
C.St. Geo	b	79	50	0
Carcoar..	b	65	46	0
Casino ..	r	61	55	3·57
Cassilis ..	c	66	52	0·34
Clarence	r	64	61	2·04
C'nd'b'lin	b	79	38	0
Cooma ..	f	63	35	0·42
Coonab'n	b	64	46	0
Cowra ..	b	76	52	0
Denilio'n	b	82	49	0
Dubbo ..	b	75	44	0·09
Eden	b	66	47	0
Euston ..	b	88	58	0
Forbes ..	b	—	55	0
Gl'n Inn's	b	55	50	0·12
Goulburn	b	67	34	0
Grafton ..	c	84	58	0·17
Gulgong ..	b	72	43	0·34
Gunned'h	b	98	54	0
Hay	b	78	46	0
Inverell..	b	76	53	0
Kiandra	n	71	25	0·15
Lismore	r	67	61	3·03
Maitland	b	82	53	1·00
Marsdens	b	71	57	0
Menindie	b	75	61	0
Molong ..	b	74	41	0·03
M'r'ng'r'll	b	71	48	0
Moree ..	b	79	52	0·06
Moruya..	b	67	47	0·18
Moss Vale	b	57	40	0·09
Mt. Hope	b	81	—	0
M.Vict'ria	b	65	38	0·11
Mudgee	b	75	40	0·03
N'rr'mb'h	b	78	47	0
M'rr'ndi	b	71	54	0·10
Mus'br'k	b	72	69	0·51
Narrabri	b	80	51	0
Newcastle	c	70	54	0·71
Orange ..	b	60	37	0·05
Picton ..	b	72	46	0·13
P. M'q'rie	b	69	56	0·32
P. St'ph'n	c	69	54	1·21
Q'nbeyan	b	68	45	0·04
Quirindi	c	80	50	0
Singleton	b	74	58	0·37
Sydney ..	c	70	55	0·06
Tamw'rth	b	64	52	0·03
Taralga ..	b	74	38	0
Taree	b	70	58	0·31
Tnt'rfield	b	83	60	0·16
Wagga ..	b	—	43	0
Walcha ..	u	54	41	0·10
Walgett..	b	74	53	0
Warrah ..	c	64	52	0·10
W'ntw'rth	b	82	53	0
W'll'ng ng	b	67	51	0·50
Young ..	h	76	41	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to OCTBR 31 44·094
Total Rainfall from January 1st to NOVBER 15 33·154
Barometers corrected to 32° Fah. and Mean Sea Level



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, astly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

South Australia.—Generally fine, clear, and warm, with fresh N.E. to N. winds, fallen barometers, and moderate sea; scattered clouds on parts of the coast. Rainfall: Daly Waters, 0·23, and Port Darwin, 0·18 inch. Extremes of barometers and temperature on the coast: Port Augusta, 30·14; Eucla, 29·74 and 94°; Cape Borda, 64°. In Northern Territory: Daly Waters, 29·96 and 89°; Port Darwin, 29·83 and 77°.

Victoria.—Generally fine and cool, with light N.W. to N.E. winds, risen barometers, and smooth sea. Rainfall: Omeo, 0·09; Melbourne, 0·07; Wilson's Promontory, 0·04; Portland, 0·63; and Ballarat, 0·02 inch. Extremes of barometers and temperature: Omeo, 30·27 and 60°; Portland, 30·07; and Melbourne, 73°.

Tasmania.—Generally fine, but cloudy; in north parts, light west winds; along the east coast, calm. The sea is smooth and no rain has fallen. Extremes of barometers and temperature: Low Heads, 30·17 and 55°; Hobart, 29·99; and Circular Heads, 61°.

New Zealand.—In north parts passing showers, with strong N.W. winds; in south parts, fine, with rather strong W. to N.W. winds. Barometers: Russell, 30·2; Gisborne, 29·9; Wellington, 30·1; and Bluff, 29·9.

New South Wales.—Generally fine and cool, with fresh southerly winds, risen barometers, and smooth sea. Cloudy with passing showers in N.E. parts, and rough sea off the Clarence. During the last 48 hours rain has fallen in the Eastern division, generally heaviest in North coast districts, where at places over three inches have fallen. Extremes of barometers and temperature at 9 a.m.: Hay 30·34, Dubbo 30· 7, Deniliquin 73°, and Cooma 42°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level at 9 a.m., 30·286. Extra station: Lake Cudgellico, max. 70°, min. 50°, calm and fine. Lawrence—Rainfall: Saturday night, 0·70; Sunday night, 1·15 inch. For further particulars see map.

Queensland.—Generally fine and clear, with S.E. to S.W. winds in south, and calms in north parts. Rainfall: Brisbane, 1·70 inch. Extremes of barometers and temperature: Cooktown 29·98 and 86°, Townsville 29·69, and Brisbane 62°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N.N.W., 23, fine, but cloudy, smooth sea, temperature 76°; Cape Otway, S.E., 18, cloudy and sultry, smooth sea, temperature 74°; Melbourne, N., 13, fine, but cloudy, temperature 80°; Cape Schanck, N.N.W., 8, fine, but cloudy, smooth sea, temperature 64°; Wilson's Promontory, N.E., 13, cloudy and gloomy, smooth sea, temperature 73°; Lakes Entrance, E., 23, fine, temperature 68°.

New South Wales.—Wentworth, N.W., fine and warm, temperature 74°; Deniliquin, W., fine, temperature 79°; Eden, N.E., 14, fine, smooth sea, temperature 67°; Moruya, W.E., 28, fine, moderate sea, temperature 69°; Cape St. George, W.E., fine, moderate sea, temperature 65°; Sydney, E., 11, fine and hazy, smooth sea, temperature 66·7; Newcastle, S.E., 1, cloudy, smooth sea, temperature 66°; Port Macquarie, S.S.E., 56, fine, moderate sea, temperature 76°; Clarence River, S., 14, dull and showery, rough sea, temperature 67°; Dubbo, E., 14, fine, temperature 68°; Goulburn, E., 14, fine, temperature 66°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 16 feet. Barwon: At Mogil Mogil, 16 feet 6 inches; at Walgett, 30 feet. Namoi: At Walgett, 10 feet. Culgoa: At Goodooga, 14 feet. Darling: At Brewarrina, 27 feet 6 inches; at Bourke, 35 feet 2 inches; at Louth, 31 feet; at Tilpa, 32 feet 6 inches; at Wilcannia, 31 feet; at Menindie, 28 feet; at Pooncarie, 23 feet 1 inch; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 5 feet; at Hay, 8 feet 9 inches; at Balranald, 12 feet 3 inches. Murray: At Albury, 5 feet 6 inches; at Euston, 13 feet 7 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 16.

Sun rises at 4.49, sets at 6.41; Moon, 10.58 p.m., 8.17 a.m.; Mercury, 6.1 a.m., 8.31 p.m.; Venus, 4.42 a.m., 6.18 p.m.; Mars, 7.8 a.m., 9.36 p.m.; Jupiter, 3.24 a.m., 4.18 p.m.; Saturn, 10.53 p.m., 8.55 a.m. Full Moon, 12th; New Moon, 26th.

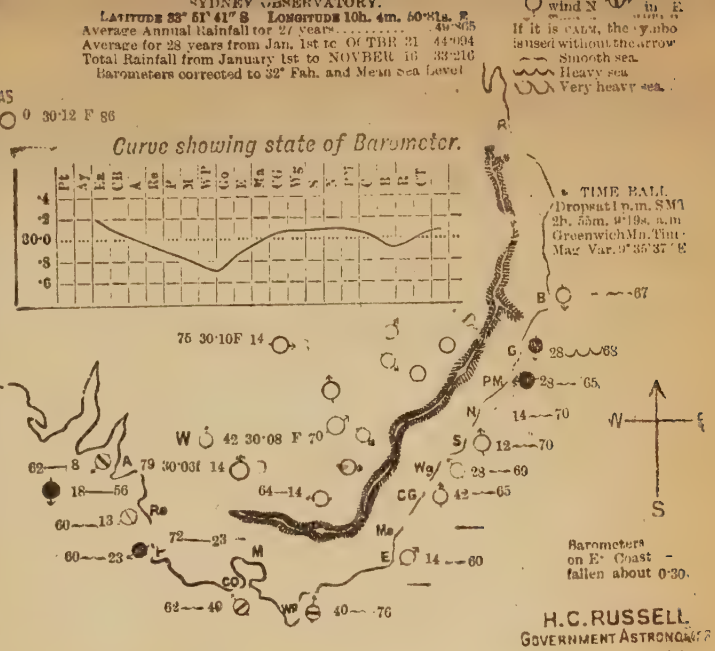
High water at Fort Denison, November 16: 11.4 a.m., 11.27 p.m.

Armidale	b	75 —	0·78
Bathurst	b	73 42	0
Bend'm'r	b	74 49	0
Bodalla ..	b	73 49	0
Bourke ..	b	86 58	0
Br'w rrina	b	90 43	0
Bundarra	b	72 56	0
C'md'n H	c	73 65	0
C.St.Geo	b	70 54	0
Carcoar ..	b	67 51	0
Casino ..	—	— —	—
Casilis ..	b	68 50	0
Clarence	r	70 61	1·05
C'nd'b'lin	b	81 45	0
Cooma ..	c	81 50	0
Coonab'n	b	73 43	0
Cowra ..	b	87 55	0
Deniliq'n	b	92 54	0
Dubbo ..	b	81 47	0
Eden	b	71 55	0
Euston ..	b	94 50	0
Forbes ..	b	— 50	0
Gl'n Inn's	b	67 51	0
Goulburn	b	81 43	0
Grafton ..	r	72 63	0·02
Gulgong	b	71 45	0
Gunned'h	b	79 55	0
Hay	b	86 46	0
Inverell..	b	81 54	0
Kiandra	b	78 38	0
Lismore	—	— —	—
Maitland	b	73 51	0
Marsdens	b	78 58	0
Menindie	b	81 61	0
Molong ..	b	81 61	0
M'r'ng'r'll	b	88 50	0
Moree ..	b	85 51	0
Moruya..	—	— —	—
Moss Vale	b	69 49	0
Mt. Hope	b	85 —	0
M.Vict'ria	b	80 37	0
Mudgee	b	80 44	0
W'rr'mb'h	b	76 50	0
M'rr'r'ndi	b	68 51	0
Mus'br'k	b	70 43	0
Narrabri	b	79 57	0
Newcastle	b	74 59	0
Orange ..	b	67 42	0
Picton ..	b	73 46	0
P. M'q'rie	r	72 61	0·03
P. St'ph'n	g	83 54	0
Q'nbeyan	b	69 52	0
Quirindi	b	82 50	0
Singleton	b	75 54	0
Sydney ..	b	71 57	0
Tamw'rth	b	71 48	0
Taralga ..	b	79 40	0
Taree	b	80 55	0
T'nt'rfield	g	82 52	0
Wagga ..	b	— 43	0
Walcha ...	r	62 43	0
Walgett..	b	85 57	0
Warrah ..	b	75 54	0
W'ntw'rth	b	83 62	0
Wl'ng ng	b	76 58	0
Young ..	b	83 43	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·41s. E.

Average Annual Rainfall for 27 years ..... 49·865
Average for 28 years from Jan. 1st to OCTBR 31 44·994
Total Rainfall from January 1st to NOVBER 16 33·216
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; z, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—No telegram.

South Australia.—Generally fine and warm north of Burra; overcast, gloomy, and cool on and near the coast; fresh N.W. to S.W. winds; risen barometers, and smooth to moderate sea. Showery at Cape Borda and M'Donnell Bay. Rainfall: Eucla, 0.22; Robe, 0.14; M'Donnell Bay, 0.12, and Cape Borda, 0·03 inch. Extremes of barometers and temperature on the coast: Eucla, 30·42; M'Donnell Bay, 29·88; Adelaide, 62°; and Cape Borda, 58°. In Northern Territory: Daly Waters, 29·93 and 90°; Port Darwin, 29·82 and 88°.

Victoria.—Generally cloudy and gloomy, with fresh N. to W. winds, fallen barometers, and smooth to moderate sea. Hot wind in fierce squalls at Wilson's Promontory, sultry and strong wind in squalls at Melbourne, rough sea at Cape Shanck. A tornado-like squall from north swept past Cape Otway at 5 a.m. this morning; it lasted about five minutes. Extremes of barometers and temperature: Lakes Entrance, 29·95; Echuca, 79°; Wilson's Promontory, 29·72; and Portland, 60°.

Tasmania.—Generally cloudy and unsettled, with strong N. to W. winds, fallen barometers, and smooth sea; sultry, and fierce squalls at Hobart. Extremes of barometers and temperature: Low Heads, 29·70 and 61°; Hobart, 29·45 and 73°.

New Zealand.—Passing showers, and calm in extreme north; fine, with N.W. wind in south parts. Barometers: Russell, 30·2; Wellington, 30·0; and Bluff, 29·9.

New South Wales.—Generally fine, clear, and warm, with light N. to E. winds, falling barometers; and in south, smooth sea, but moderate to rough in north. Showery in north coast districts, and rain recorded; heaviest on the Clarence. Extremes of barometers and temperature at 9 a.m.: Hay, 30·12 and 80°; Eden, 29·88; and Cooma, 50°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·082. Extra stations: Lake Cudgellico, max. 80°, min. 52°, fine and warm. For further particulars see map.

Queensland.—Generally fine and clear; light S.E. winds in south, and calm in north parts. Rainfall at Brisbane, 4·46 inches. Extremes of barometers and temperature: Cooktown, 30·02 and 84°; Townsville, 29·69; and Brisbane, 67°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 23, cloudy, smooth sea, temperature 60°; Cape Otway, S.W., 34, gloomy and misty, smooth sea, temperature 57°; Melbourne, S., 13, showery, temperature 54°; Cape Schanck, W.S.W., 23, showery and squally, smooth sea, temperature 65°; Wilson's Promontory, W., 34, showery, sea moderate, temperature 58°; Lakes Entrance, N., 13, gloomy and sultry, temperature 80°.

New South Wales.—Menindie, calm, fine and hot, temperature 79°; Wentworth, S.W., fine and clear, temperature 79°; Deniliquin, N., 28, fine and hot, temperature 87°; Eden, N.E., 28, fine, smooth sea, temperature 70°; Moruya, N.E., 28, fine, smooth sea, temperature 69°; Cape St. George, N., 28, fine, smooth sea, temperature 70°; Sydney, N.E., 26, fine and hazy, smooth sea, temperature 70°; Newcastle, E., 28, fine, smooth sea, temperature 70°; Port Macquarie, S.E., 14, cloudy, and hazy, moderate sea, temperature 78°; Clarence River, S., 14, raining, moderate sea, temperature 71°; Dubbo, N.W., 14, fine, temperature 74°; Goulburn, W., 14, fine, temperature 70°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 15 feet. Barwon: At Mogil Mogil, 17 feet; at Walgett, 29 feet 8 inches. Namoi: At Walgett, 11 feet 4 inches. Culgoa: At Goodooga, 3 feet 10 inches. Darling: At Brewarrina, 25 feet 6 inches; at Bourke, 35 feet 3 inches; at Louth, 31 feet 3 inches; at Tilpa, 33 feet; at Wilcannia, 31 feet 1 inche; at Menindie, 28 feet; at Pooncarie, 24 feet; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 3 feet 6 inches; at Wagga, 7 feet 7 inches; at Hay, 8 feet 6 inches; at Balranald, 12 feet 1 inch. Murray: At Albury, 5 feet 10 inches; at Euston, 13 feet 6 inches.

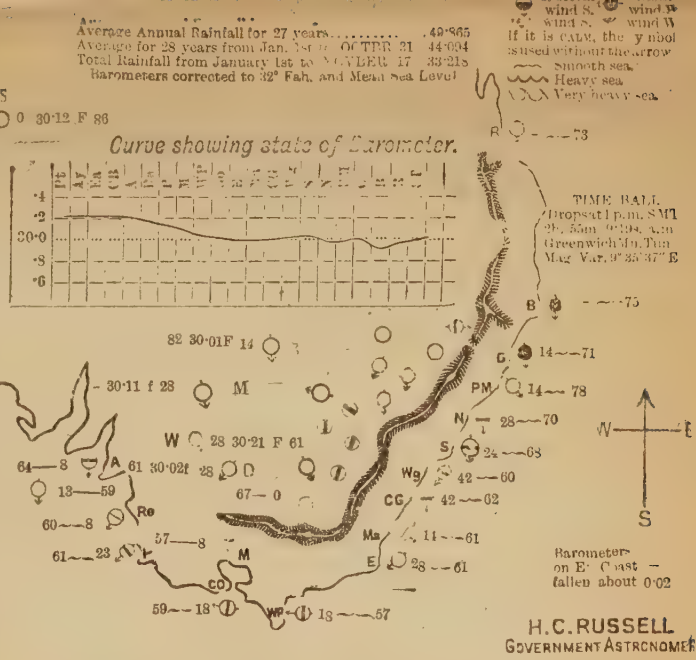
ASTRONOMICAL MEMORANDA FOR NOVEMBER 17.

Sun rises at 4.49, sets at 6.42; Moon, 11.46 p.m., 9.16 a.m.; Mercury, 6.1 a.m., 8.31 p.m.; Venus, 4.41 a.m., 6.20 p.m.; Mars, 7.7 a.m., 9.35 p.m.; Jupiter, 3.21 a.m., 4.10 p.m.; Saturn, 10.49 p.m., 8.51 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 17: 11.49 a.m., 11.49 p.m.

Balranald	b	99 44	0	
Bathurst	c	83 44	0	
Bend'n'r	b	80 56	0	
Bodalla	c	87 69	0	
Bourke	b	93 60	0	
Br'w rrina	b	104 45	0	
Bundarra	b	78 63	0	
C'md'n H	b	79 68	0	
C. St. Geo	g	87 60	0	
Carcoar	g	70 56	0	
Casino	c	75 54 1·12		
Cassilis	b	76 57	0	
Clarence	r	74 61 0·03		
C'nd'b'lin	c	87 49	0	
Cooma	c	89 56	0	
Coonab'n	b	86 49	0	
Cowra	g	93 58	0	
Deniliq'n	b	99 49	0	
Dubbo	b	89 47	0	
Eden	b	71 56	0	
Euston	b	101 54	0	
Forbes	b	— 53	0	
Gl'n Inn's	b	73 52	0	
Goulburn	b	85 48	0	
Grafton	r	78 67 0·05		
Gulgong	b	80 50	0	
Gunned'h	b	78 64	0	
Hay	b	93 46	0	
Inverell	b	88 65	0	
Kiandra	b	78 47	0	
Lismore	r	77 69 0·63		
Maitland	b	82 60	0	
Marsdens	c	85 65	0	
Menindie	b	90 65	0	
Molong	b	85 48	0	
M'r'ng'r'll	c	86 57	0	
Moree	b	91 61	0	
Moruya	g	75 59	0	
Moss Vale	u	81 56	0	
Mt. Hope	g	97 —	0	
M. Vict'ria	b	89 57	0	
Mudgee	h	83 44	0	
N'rr'mb'h	c	73 57	0	
N'rr'r'ndi	b	75 55	0	
Mus'br'k	b	87 46	0	
Narrabri	b	95 61	0	
Newcastle	g	75 63	0	
Orange	c	73 46	0	
Picton	u	82 54	0	
P. M'q'rie	b	81 63	0	
P, St'ph'n	b	79 61	0	
Q'nbeyan	c	79 58	0	
Quirindi	b	92 62	0	
Singleton	b	81 61	0	
Sydney	g	75 61	0	
Tamw'rth	b	83 61	0	
Taralga	b	85 47	0	
Taree	b	82 63	0	
T'nt'rfield	c	71 63	0	
Wagga	b	— 61	0	
Walcha	b	79 49	0	
Walgett	b	91 61	0	
Warrah	b	87 56	0	
W'ntw'rth	b	97 55	0	
W'll'ng ng	g	79 61	0	
Young	g	88 49	0	

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to OCTBR 31 44·094
Total Rainfall from January 1st to NOVBER 17 33·215
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:— Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally cloudy and unsettled, with light S. to E. winds and calms, and moderate sea. Extremes of barometers and temperature: Esperance Bay, 30·23 and 58°; Carnarvon, 29·87; and Ashburton, 92°.

South Australia.—Generally fine, clear, and cool north of Burra; cloudy and gloomy on and near the coast; light S.E. to S.W. winds, risen barometers, and smooth sea. Extremes of barometers and temperature on the coast: Eucla, 30·24 and 65°; M'Donnell Bay, 30·13 and 57°; In Northern Territory: Daly Waters, 29·90 and 93°; Port Darwin, 29·83 and 85°.

Victoria.—Generally cloudy, unsettled, and cool, with light W. to S. winds, risen barometers, and smooth sea. Rainfall: Melbourne, 0·06; Capes Schank and Otway, 0·05; Ballarat, Wilson's Promontory, and Portland, 0·02. inch. Extremes of barometers and temperature: Cape Otway, 30·15; Hamilton, 30·09 and 53°; Horsham, 64°.

Tasmania.—Generally fine, but cloudy, with light N. to W. winds, fallen barometers, and moderate sea. Extremes of barometers and temperature: Circular Heads, 30·01; Hobart, 29·90 and 60°.; Low Heads, 55°.

New Zealand.—Generally fine. In north light S. wind.; at Wellington and Bluff strong N.W. wind. Barometers: Russell, 30·2; Wellington, 29·9; and Bluff, 29·7.

New South Wales.—Generally fine, with light variable winds and calms, slightly fallen barometers, and smooth to moderate sea; in south-east parts, cloudy and unsettled, and on the Clarence and Richmond Rivers it is still raining, this being the third day of a continuous downpour in those parts. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·21; Eden, 29·95; Wagga Wagga, 86°, and Cooma, 58°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·023. Extra stations: Lake Cudgellico, max. 73°, min. 52°, calm, clear, and warm. For further particulars see map.

Queensland.—Generally fine, south winds in south parts; calm in north; showery at Brisbane; sultry at Townsville. Rainfall: Brisbane, 0·03; Rockhampton, 0·12. Extremes of barometers and temperature: Cooktown, 29·99 and 89°; Townsville, 29·64; and Rockhampton, 73°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 28, fine but cloudy, smooth sea, temperature 61°; Cape Otway, E.S.E., 28, fine but cloudy, smooth sea, temperature 61°; Melbourne, S., 13, fine, temperature 62°; Cape Schanck, S.S.E., 8, fine but cloudy, smooth sea, temperature 64°; Wilson's Promontory, W.S.W., 23, fine but cloudy, sea moderate, temperature 59°; Lakes Entrance, S.S.W., 18, fine, temperature 66°.

New South Wales.—Menindie, S.W., 14, fine and warm, temperature 75°; Wentworth, S., fine, temperature 67°; Deniliquin, S., 14, fine and clear, temperature 77°; Eden, S.E., 28, cloudy and gloomy, smooth sea, temperature 61°; Moruya, S., 14, overcast, smooth sea, temperature 62°; Cape St. George, S.E., 14, cloudy and dull, smooth sea, temperature 63°; Sydney, S.S.E., 16, overcast and dull, moderate sea, temperature 67°; Newcastle, S., 28, fine, smooth sea, temperature 69°; Port Macquarie, N.E., 14, sultry and fine, smooth sea, temperature 82°; Clarence River, S.S.E., 14, fine, moderate sea, temperature 81°; Walgett, calm, cloudy, temperature 91°; Dubbo, E., 14, fine and stormy-looking, temperature 70°; Goulburn, S.W., 14, fine, temperature 69°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 15 feet. Barwon: At Mogil Mogil, 17 feet; at Walgett, 29 feet 6 inches. Namoi: At Walgett, 12 feet 6 inches. Culgoa: At Goodooga, 3 feet 8 inches. Darling: At Brewarrina, 23 feet; at Bourke, 36 feet 4 inches; at Louth, 31 feet 4 inches; at Tilpa, 33 feet 7 inches; at Wilcannia, 31 feet 2 inches; at Menindie, 27 feet 10 inches; at Pooncarie, 24 feet 6 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 3 feet 6 inches; at Wagga, 6 feet 2 inches; at Hay, 8 feet 2 inches; at Balranald, 12 feet 1 inch. Murray: At Albury, 4 feet 9 inches; at Euston, 13 feet 6 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 18.

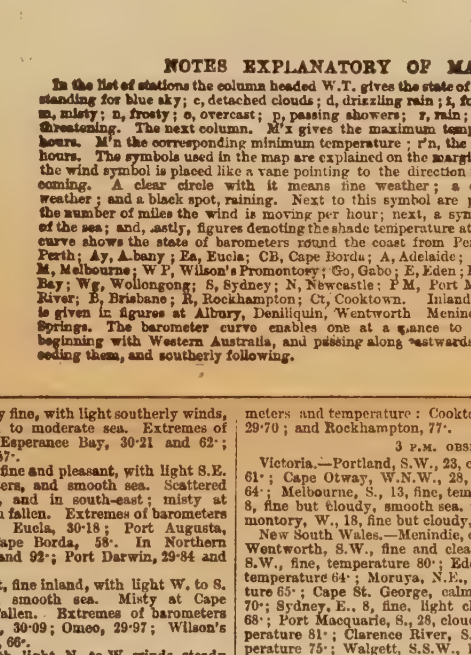
Sun rises at 4.48, sets at 6.43; Moon, —, 10.18 a.m.; Mercury, 6 a.m., 8.30 p.m.; Venus, 4.41 a.m., 6.22 p.m.; Mars, 7.7 a.m., 9.35 p.m.; Jupiter, 3.17 a.m., 4.7 p.m.; Saturn, 10.45 p.m., 8.47 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 18: 12.13 a.m., 12.37 p.m.

Armidale	b	82	59	0
Balranald	b	104	57	0
Bathurst	c	92	60	0
Bathurst	b	82	51	0
Bend'm'r	g	89	57	0
Bodalla ..	c	70	56	0
Bourke ..	b	97	65	0
Br'w'rrina	b	100	51	0
Bundarra	b	84	62	0·74
C'md'n H	r	87	62	0·85
C.St.Geo	b	67	57	0
Carcoar ..	b	74	53	0
Casino ..	u	83	61	0·10
Cassilis ..	o	81	64	0
Clarence	r	84	67	0·19
C'nd'b'lin	b	90	49	0
Cooma ..	c	92	44	0
Coonab'n	b	90	55	0
Cowra ..	b	92	63	0
Deniliq'n	b	85	45	0
Dubbo ..	b	90	51	0
Eden	b	68	54	0
Euston ..	b	85	48	0
Forbes ..	b	—	55	0
Gl'n inn's	b	78	53	0·13
Goulburn	g	84	52	0
Grafton	g	90	69	0
Gulgong	b	84	55	0
Gunned'h	b	94	63	0
Hay	b	90	51	0
Inverell..	b	91	62	0·40
Kiandra	b	82	41	0
Lismore	r	85	71	0·21
Maitland	b	83	64	0
Marsdens	b	88	65	0
Menindie	b	78	63	0
Molong ..	b	88	51	0
M'r'ng'r'll	b	89	60	0
Moree ..	b	95	66	0
Moruya..	g	65	57	0
Moss Vale	u	70	55	0
Mt. Hope	b	93	—	0
M.Vict'ria	b	79	50	0
Mudgee	c	88	52	0
N'rr'mb'h	b	88	59	0
M'rr'ndi	b	80	64	0
Mus'br'k	r	92	61	0
Narrabri	b	95	61	0
Newcastle	c	74	63	0·02
Orange ..	b	78	51	0
Picton ..	u	77	54	0
P. M'q'rie	c	86	65	0·04
P. St'ph'n	c	79	64	0·10
Q'nbeyan	c	79	57	0
Quirindi	b	92	61	0
Singleton	g	82	67	0
SYDNEY ..	o	75	62	0
Tamw'rth	b	89	58	0
Taralga ..	u	86	50	0
Taree	r	88	67	0·19
T'nt'rfield	c	85	63	0
Wagga ..	b	—	58	0
Walcha ..	o	82	54	0
Walgett..	b	99	66	0
Warrah ..	b	90	60	0
W'ntw'rth	b	98	52	0
W'll'ng ng	c	76	60	0
Young ..	b	91	55	0

Average Annual Rainfall for 27 years..... 40·865
Average for 28 years from Jan. 1st to OCTBR 21 44·094
Total Rainfall from January 1st to NOVBER 18 33·219
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.



Barometers on E. Coast — risen about 0·01

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light southerly winds, fallen barometers, and smooth to moderate sea. Extremes of barometers and temperature: Esperance Bay, 30·21 and 62°; Cossack, 29·80, and Carnarvon, 57°.

South Australia.—Generally fine and pleasant, with light S.E. to S.W. winds, fallen barometers, and smooth sea. Scattered clouds on parts of the coast, and in south-east; misty at M'Donell Bay, and 0·01 inch rain fallen. Extremes of barometers and temperature on the coast: Eucla, 30·18; Port Augusta, 30·07; Adelaide, 67°; and Cape Borda, 58°. In Northern Territory: Daly Waters, 29·91 and 92°; Port Darwin, 29·84 and 90°.

Victoria.—Cloudy on the coast, fine inland, with light W. to S. winds, fallen barometers, and smooth sea. Misty at Cape Schanck and Otway; no rain fallen. Extremes of barometers and temperature: Cape Otway, 30·09; Omeo, 29·97; Wilson's Promontory, 56°; and Horsham, 66°.

Tasmania.—Generally fine, with light N. to W. winds, steady barometers, and smooth sea. Extremes of barometers and temperature: Circular Heads, 30° and 57°; Hobart, 29·91 and 64°.

New Zealand.—Generally fine, with westerly winds; calm in extreme north. Barometers: Russell, 30·02; Wellington, 29·9; and Bluff, 29·8.

New South Wales.—Fine west of the range; cloudy and threatening in the coast districts; raining at mouths of the Richmond, Clarence, and Manning rivers. The winds generally are light, from N.E. to S.E. and S., with calms in places; barometers have risen slightly, and the sea is smooth. Light rain has fallen in N.E. parts, heaviest on the range, near the Macleay river. Extremes of barometers and temperature at 9 a.m.: Wentworth 30·15, Dubbo 29·93, Bourke 84°, and Cooma 53°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·044. Extra stations: Newton Boyd, rainfall from 8.30 p.m. to midnight yesterday, 2·01 inches; Lake Cudgellico, max. 85°, min. 61°, calm, fine, and clear. For further particulars see map.

Queensland.—Generally fine, in south parts S.E. winds; in north, calm. Rainfall: Brisbane, 0·11 inch. Extremes of barometers and temperature: Cooktown, 30·02 and 90°; Townsville 29·70; and Rockhampton, 77°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 23, cloudy, smooth sea, temperature 61°; Cape Otway, W.N.W., 28, cloudy, smooth sea, temperature 64°; Melbourne, S., 13, fine, temperature 62°; Cape Schanck, S., 8, fine but cloudy, smooth sea, temperature 63°; Wilson's Promontory, W., 18, fine but cloudy, smooth sea, temperature 60°.

New South Wales.—Menindie, calm, fine, hot, temperature 76°; Wentworth, S.W., fine and clear, temperature 73°; Deniliquin, S.W., fine, temperature 80°; Eden, N.E., 14, fine, smooth sea, temperature 64°; Moruya, N.E., 28, overcast and dull, temperature 65°; Cape St. George, calm, fine, smooth sea, temperature 70°; Sydney, E., 8, fine, light clouds, smooth sea, temperature 68°; Port Macquarie, S., 28, cloudy and sultry, smooth sea, temperature 81°; Clarence River, S.S.E., 28, fine, smooth sea, temperature 75°; Walgett, S.S.W., 14, fine and sultry, temperature 92°; Dubbo, calm, fine, temperature 77°; Goulburn, S.E., 14, fine, temperature 71°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 16 feet. Barwon: At Mogil Mogil, 17 feet; at Walgett, 29 feet. Namoi: At Walgett, 14 feet. Culgoa: At Goodooga, 3 feet 6 inches. Darling: At Brewarrina, 23 feet; at Bourke, 35 feet 2 inches.; at Louth, 32 feet; at Tilpa, 34 feet; at Wilcannia, 31 feet 3 inches; at Menindie, 28 feet; at Pooncarie, 24 feet 2 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 3 feet 4 inches; at Wagga, 5 feet 7 inches; at Hay, 7 feet 10 inches; at Balranald, 12 feet. Murray: At Albury, 4 feet 2 inches; at Euston, 13 feet 6 inches.

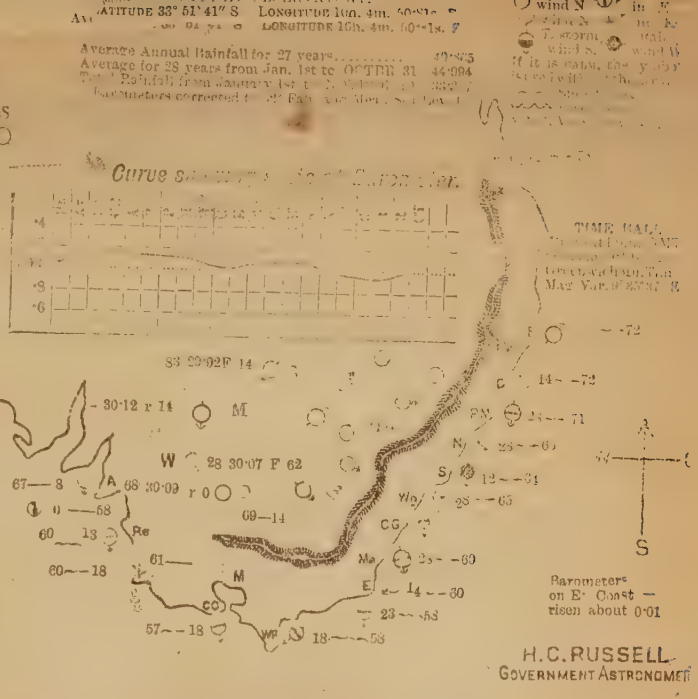
ASTRONOMICAL MEMORANDA FOR NOVEMBER 19.

Sun rises at 4.48, sets at 6.44; Moon, 12.33 a.m., 11.21 a.m.; Mercury, 6.0 a.m., 8.30 p.m.; Venus, 4.41 a.m., 6.24 p.m.; Mars, 7.6 a.m, 9.34 p.m.; Jupiter, 3.14 a.m., 4.4 p.m.; Saturn, 10.41 p.m., 8.43 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 19: 1.5 a.m., 1.33 p.m.

H.C.HUNTSMAN

Arndale	b	82 59	0
Balranald	b	104 57	0
Bathurst	b	86 60	0
Bathurst	b	83 51	0
Bend'm'r	b	77 53	0·01
Bedalla ..	o	74 55	0·02
Bourke ..	b	101 65	0
Br'w'rrina	b	101 53	0
Bundarra	b	81 62	1·32
C'mdn H	c	75 68	2·10
C.St.Geo	c	73 59	0
Carcoar ..	b	75 68	0
Casino ..	b	81 64	0·05
Cassilis ..	o	76 64	0
Clarence	c	80 66	0·87
C'nd'b'lin	b	93 48	0
Cooma ..	c	88 50	0
Coonab'n	b	82 58	0
Cowra ..	b	93 66	0
Deniliq'n	b	91 48	0
Dubbo ..	b	90 60	0
Eden	b	64 60	0
Euston ..	b	89 53	0
Forbes ..	b	— 52	0
Gl'n Inn's	b	78 56	0·50
Goulburn	g	83 57	0
Grafton ..	g	84 62	0·16
Gulgong	c	78 58	0
Gunned'h	b	90 62	0
Hay	b	90 51	0
Inverell ..	b	86 61	0·37
Kiandra	b	83 38	0
Lismore	b	82 69	0·07
Maitland	r	76 65	0
Marsdens	b	89 68	0
Menindie	b	72 63	0
Molong ..	b	88 55	0
M'r'ng'r'll	b	91 61	0
Moree ..	b	98 63	0
Moruya ..	g	72 58	0·02
Moss Vale	r	72 60	0
Mt. Hope	b	96 —	0
M.Vict'ria	c	82 50	0
Mudgee	u	86 57	0
W'rr'mb'h	b	85 61	0
M'rr'ndi	o	76 64	0
Mus'br'k	b	81 63	0·02
Narrabri	b	90 59	0
Newcastle	g	69 63	0·41
Orange ..	b	78 53	0
Picton ..	o	74 61	0
P. M'q'rie	c	80 64	0·14
P. St'ph'n	g	73 60	0·31
Q'nbeyan	g	76 58	0
Quirindi	b	86 59	0
Singleton	g	72 67	0
SYDNEY ..	r	69 64	0·09
Tamw'rth	b	84 57	0
Taralga ..	g	85 58	0
Taree	r	75 68	1·00
T'nt'rfield	b	70 59	0·59
Wagga ..	b	— 56	0
Walcha ..	b	81 63	0·05
Walgett ..	b	97 66	0
Warrah ..	b	94 59	0
W'ntw'rth	b	85 54	0
W'll'ng'ng	c	74 63	0
Young ..	b	90 56	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:— Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; I, Portland; M, Melbourne; W P, Wilson's Promontory; Co, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine and clear, with light southerly winds, fallen barometers, and smooth sea on the south coast; rough at Carnarvon. Extremes of barometers and temperature: Esperance Bay, 30·14 and 62°; Ashburton, 29·85 and 90°.

South Australia.—Generally fine and warm, with scattered clouds on and near the coast, light S.W. to S.E. winds, steady barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature on the coast: Eucla, 30·15 and 67°; Port Augusta, 30·08; and Cape Borda, 58°. In Northern Territory: Daly Waters, 29·91 and 91°; Port Darwin, 29·84 and 89°.

Victoria.—Generally fine and cool, with light south-east to south-west winds, slightly risen barometers, and smooth sea; cloudy in S.W. parts; no rain fallen. Extremes of barometers and temperature: Hamilton, 30·26; Echuca, 29·94; Horsham, 65°; and Omeo, 55°.

Tasmania.—Generally fine, but cloudy, with light variable winds, risen barometers, and smooth sea. Rainfall: Southport, 0·03 inches. Extremes of barometers and temperature: On the north coast, 30·05 and 58°; Southport, 30·02; Falmouth, 62°.

New Zealand.—Generally fine, with light N.W. wind in extreme south, calms to north. Barometers: Russell, 30·2; Wellington and Bluff, 30·1.

New South Wales.—Fine west of the range: fine, clear, and warm in coast and mountain districts generally; cloudy and unsettled, with light misty rain falling at a few scattered places around Sydney. Rain has fallen in E. and N.E. parts; heaviest on and near the Manning River, and on the range to the N.W. of it, at which places from one to two inches have been recorded during the last 24 hours. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·12; Dubbo, 29·92; Bourke, 83°; and Cooma, 53°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea-level, at 9 a.m., 30·003. Extra stations: Lake Cudgellico, max. 90°, min. 65°, fine and hot. For further particulars see map.

Queensland.—Generally fine, with N.E. to E. winds in south parts, and calm in north; steady barometers and smooth sea. Rainfall: Rockhampton, 0·02 inch. Extremes of barometers and temperature: Cooktown, 30·02; Townsville, 29·65 and 90°; Brisbane, 72°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.S.E., 23, fine, smooth sea, temperature 62°; Cape Otway, S.S.E., 18, fine, smooth sea, temperature 61°; Melbourne, S.S.W., 13, fine, temperature 62°; Cape Schanck, S.E., 8, fine but cloudy, temperature 64°; Wilson's Promontory, S.W., 13, fine but cloudy, temperature 69°; Lakes Entrance, S.E., 8, cloudy, 65°.

New South Wales.—Menindie, S.W., 11, fine and clear, temperature 77°; Wentworth, W.S.W., 14, fine and clear, temperature 74°; Deniliquin, S.W., 14, fine and clear, temperature 81°; Eden, S., 14, cloudy, smooth sea, temperature 64°; Moruya, S., 28, gloomy, smooth sea, temperature 63°; Cape St. George, S.,42, misty and cloudy, smooth sea, temperature 50°; Sydney, S., 18, overcast and dull, moderate sea, temperature 68°; Newcastle, S., 28, dull, moderate sea, temperature 62°; Port Macquarie, S., 28, fine and sultry, smooth sea, temperature 80°; Dubbo, calm, fine, temperature 78°; Goulburn, S.E., 14, dull, temperature 68°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 17 feet. Barwon: At Mogil Mogil, 17 feet; at Walgett, 28 feet 10 inches. Namoi: At Walgett, 15 feet. Culgoa: At Goodooga, 3 feet 5 inches. Darling: At Brewarrina, 22 feet 6 inches; at Bourke, 34 feet 10 inches; at Louth, 32 feet 6 inches; at Tilpa, 34 feet 6 inches; at Wilcannia, 31 feet; at Menindie, 27 feet 3 inches; at Pooncarie, 24 feet 2 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 4 feet 9 inches; at Hay, 7 feet; at Balranald, 12 feet. Murray: At Albury, 3 feet 11 inches; at Euston, 13 feet 5 inches.

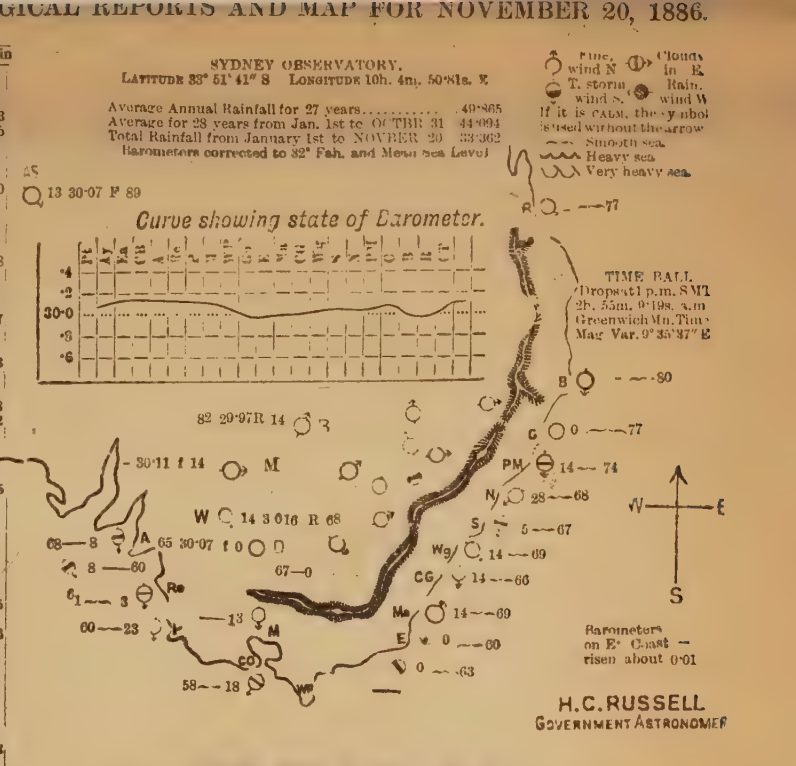
ASTRONOMICAL MEMORANDA FOR NOVEMBER 20.

Sun rises at 4.47, sets at 6.45; Moon, 1.14 a.m., 1.32 p.m.; Mercury, 5.59 a.m., 8.29 p.m.; Venus, 4.41 a.m., 6.24 p.m.; Mars 7.5 a.m, 9.33 p.m.; Jupiter, 3.10 a.m., 4.1 p.m.; Saturn, 10.37 p.m., 8.39 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 20: 2.6 a.m., 2.4t p.m.

METEOROLOGICAL REPORTS AND MAP FOR NOVEMBER 20, 1886.

Stations	wt	Mx	mn	r'in
Albury	b	90	53	0
Armidale	b	68	58	0
Balranald	b	93	53	0
Bathurst	b	85	52	0·03
Bend'm'r	g	84	54	0·36
Bodalla ..	c	72	52	0
Bourke ..	b	98	70	0
Br'w rrina	b	101	54	0
Bundarra	b	77	58	0·10
C'md'n H	c	75	67	0
C. St. Geo	b	68	57	0
Carcoar ..	b	78	64	0
Casino ..	b	80	59	0
Cassilis ..	c	79	64	0·38
Clarence	b	83	66	0
C'nd'b'lin	b	97	49	0
Cooma ..	b	80	49	0
Coonab'n	b	86	55	0·17
Cowra ..	b	91	63	0
Deniliq'n	b	91	44	0
Dubbo ..	b	94	58	0·13
Eden	c	66	56	0
Euston ..	b	90	54	0
Forbes ..	b	—	57	0·18
Gl'n Inn's	b	76	51	0·32
Goulburn	b	71	52	0
Grafton ..	b	85	63	0·45
Gulgong	b	80	57	0
Gunned'h	b	89	62	0
Hay	b	86	54	0
Inverell ..	b	85	57	0
Kiandra	c	84	47	0
Lismore	b	81	70	0
Maitland	b	81	66	0
Marsdens	b	91	68	0·25
Menindie	b	73	63	0
Molong ..	b	91	53	0·06
M'r'ng'r'll	b	91	68	0
Moree ..	b	91	64	0
Moruya ..	b	71	57	0
Moss Vale	b	65	55	0
Mt. Hope	b	99	—	0
M. Vict'ria	b	73	52	0
Mudgee	c	69	57	0·03
N'rr'mb'h	b	86	57	0
M'rr'ndi	g	78	55	0
Mus'br'k	b	87	61	0
Narrabri	b	91	62	0
Newcastle	g	74	64	0·22
Orange ..	b	78	53	0·08
Picton ..	c	70	60	0
P. M'q'rie	c	77	61	0
P. St'ph'n	r	78	61	1·61
Q'nbeyan	b	71	59	0
Quirindi	b	87	59	0
Singleton	b	79	68	0
SYDNEY ..	g	71	62	0·06
Tamw'rth	b	86	55	0
Taralga ..	b	74	52	0
Taree	c	81	60	0·10
Tent'rfield	b	85	58	0·55
Wagga ..	b	—	53	0
Walcha ..	b	87	54	0·04
Walgett ..	b	99	66	0
Warrah ..	b	84	60	0
W'ntw'rth	b	87	57	0
Wil'ng ng	b	73	61	0
Young ..	b	86	56	0



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, astly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:— Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ke, Robe; F, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, fine but cloudy weather, with light N.E. wind and smooth sea. Barometer, 30·06; temperature, 63°.

South Australia.—Generally fine and cool, with light S. to S.E. winds, slightly risen barometers, and smooth sea. Scattered clouds on and near the coast. Extremes of barometers and temperature on the coast: Cape Borda, 30·06; Streaky Bay, 30·10; M'Donnell Bay, 58°; and Adelaide, 68°. In Northern Territory: Daly Waters, 29·92 and 91°; Port Darwin, 29·80 and 89°.

Victoria.—Generally fine, with light variable winds, steady barometers, and smooth sea; misty and cloudy in places on the coast; no rain fallen. Extremes of barometers and temperature: Hamilton, 30·23 and 54°; Omeo, 29·99 and 68°.

Tasmania.—Generally fine, with light variable winds, steady barometers, and smooth to moderate sea; no rain fallen. Extremes of barometers and temperature: On the North Coast, 30·05 and 58°; Hobart, 29·96 and 62°.

New Zealand.—Generally fine, with N.E. to E. winds. Barometers: Russell, 30·2; Wellington and Bluff, 30·1.

New South Wales.—Generally fine and warm with light N.E. to S.E. and south winds, almost steady barometers and smooth sea. Cloudy and unsettled on parts of the coast and mountains, and showery at Port Stephens. Rain has fallen at a few scattered places in the eastern division; heaviest at Port Stephens. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·16; Eden, 29·96 and 60°; Bourke, 82°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea-level, at 9 a.m., 30·028. Extra stations: Hill End, rainfall 0·50 inch; Lake Cudgellico, max. 88°, min. 57°, calm, fine and hot. For further particulars see map.

Queensland.—Generally fine and clear, with S. to S.E. winds in south parts, calms in north, risen barometers and smooth sea. Rainfall: Cooktown, 0·58; Rockhampton, 0·38; Townsville, 0·12; and Brisbane, 0·02. Extremes of barometers and temperature: Cooktown, 30·06 and 90°; Townsville, 29·71 and Rockhampton, 77°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S., 24, cloudy, moderate sea, temperature 60°; Cape Otway, S., 12, cloudy, smooth sea, temperature 63°; Wilson's Promontory, S.W., 24, fine, smooth sea, temperature 62°.

New South Wales.—Menindie, S.E., 14, fine and clear, temperature 79°; Wentworth, S., fine, temperature 75°; Deniliquin, S.W., 14, fine and clear, temperature 79°; Eden, S., 14, cloudy, smooth sea, temperature 63°; Moruya, S., 30, cloudy, raining, smooth sea, temperature 62°; Cape St. George, N.N.E., 14, fine, smooth sea, temperature 68°; Sydney, E.N.E., 15, fine and clear, smooth sea, temperature 72°; Newcastle, S.E., 10, fine, smooth sea, temperature 71°; Port Macquarie, S.E., 14, fine and sultry, moderate sea, temperature, 82; Clarence River, S.E., 10, fine, smooth sea, temperature 80°; Dubbo, calm, cloudy, temperature 78°; Forbes, calm, fine; Goulburn, N.W., 10, fine, temperature 70°.

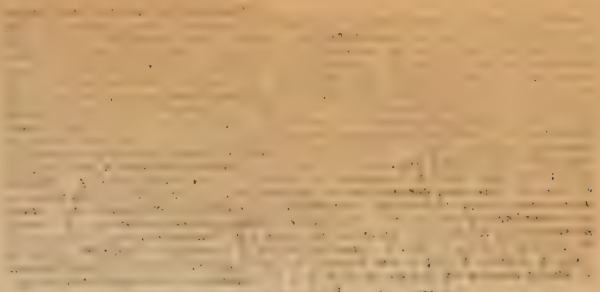
HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 18 feet. Barwon: At Mogil Mogil, 18 feet; at Walgett, 28 feet 6 inches. Namoi: At Walgett, 17 feet. Culgoa: At Goodooga, 3 feet 4 inches. Darling: At Brewarrina, 20 feet; at Bourke, 34 feet 4 inches; at Louth, 33 feet; at Tilpa, 34 feet 11 inches; at Wilcannia, 31 feet 3 inches; at Menindie, 27 feet 8 inches; at Pooncarie, 24 feet 3 inches; at Wentworth, 16 feet 8 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 4 feet 5 inches; at Hay, 7 feet; at Balranald, 12 feet. Murray: At Albury, 3 feet 6 inches; at Euston, 13 feet 5 inches.

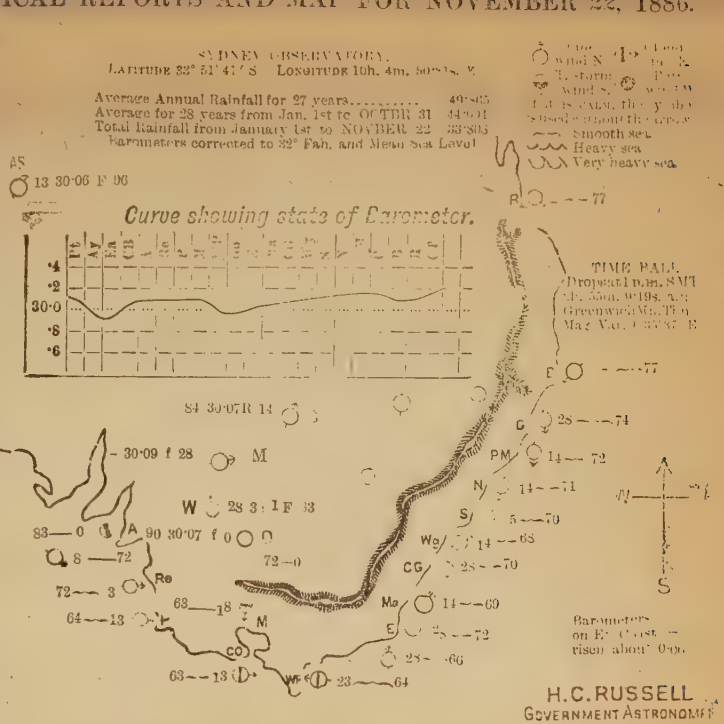
ASTRONOMICAL MEMORANDA FOR NOVEMBER 22.

Sun rises at 4.46, sets at 6.46; Moon, 2.32 a.m., 2.36 p.m.; Mercury, 5.56 a.m., 8.24 p.m.; Venus, 4.41 a.m., 6.31 p.m.; Mars, 7.5 a.m, 9.32 p.m.; Jupiter, 3.4 a.m., 3.56 p.m.; Saturn, 10.29 p.m., 8.31 a.m. Full Moon, November 12th; New Moon, 26th.

High water at Fort Denison, November 22, 4.34 a.m., 5.12 p.m.



Stations.	wt	Max.	Mn	r'in
Albury	b	91	57	0
Armidale	b	87	55	0·11
Balranald	b	101	59	0
Bathurst	b	81	49	0·03
Bend'm'r	b	80	50	0
Bodalla ..	b	79	49	0
Bourke ..	b	102	69	0
Br'w rrina	b	107	60	0
Bundarra	b	77	54	0·04
B'md'n H	c	76	66	0
C.St. Geo	b	72	57	0
Carcoar ..	b	73	56	0·70
Casino ..	b	84	53	0·49
Cassilis ..	b	75	62	0
Clarence	b	84	66	0·02
C'nd'b'lin	b	75	48	0
Cooma ..	b	78	47	0
Coonab'n	b	85	51	0
Cowra ..	b	94	64	0·04
Deniliq'n	b	96	44	0
Dubbo ..	b	90	55	0
Eden	b	74	59	0
Euston ..	b	98	52	0
Forbes ..	b	—	56	0
Gl'n Inn's	b	73	51	0·43
Goulburn	b	75	49	0
Grafton ..	b	83	64	0·11
Gulgong	b	82	51	0
Gunned'h	b	87	60	0·93
Hay	b	90	55	0
Inverell ..	b	83	53	0
Kiandra	g	84	38	0
Lismore	b	77	64	0·43
Maitland	b	86	57	0
Marsdens	b	88	64	0·21
Menindie	b	87	70	0
Molong ..	b	86	52	0·85
M'r'ng'r'll	b	92	63	0
Moree ..	b	90	60	0·70
Moruya ..	b	71	56	0
Moss Vale	b	65	52	0.49
Mt. Hope	b	99	—	0
M.Vict'ria	b	81	48	1·30
Mudgee	b	89	51	0
N'rr'mb'h	b	103	59	0
M'rr'ndi	b	81	62	0·45
Mus'll'br'k	b	81	52	0
Narrabri	b	93	63	0·49
Newcastle	b	76	63	0·01
Orange ..	b	78	50	3·65
Picton ..	b	68	54	0·12
P. M'q'rie	b	77	61	0
P. St'ph'n	c	75	57	0·45
Q'nbeyan	b	81	58	0
Quirindi	b	89	58	0·16
Singleton	b	74	61	0·76
Sydney ..	b	73	70	0·45
Tamw'rth	b	84	54	0
Taralga ..	b	88	50	0
Taree	b	79	65	0·17
T'nt'rfield	b	81	66	0·29
Wagga ..	b	—	59	0
Walcha ..	b	76	47	0·02
Walgett ..	b	95	65	0
Warrah ..	b	82	51	0·21
W'ntw'rth	b	94	61	0
W'll'ng ng	b	72	58	0
Young ..	b	93	53	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light southerly winds and calms, risen barometers, and smooth to moderate sea (rough sea off Gascoyne River). Extremes of barometers and temperatures: Perth, 30·07; Cossack, 29·81; Esperance Bay, 64°; and Ashburton, 79°.

South Australia.—Generally warm, sultry, and partially clouded, with light N.E. to S.E. winds and calms, fallen barometers, and smooth sea. Rainfall: 0·40 inch at Daly Waters. Extremes of barometers and temperature on the coast: Cape Borda, 30·04; Eucla, 29·87; M'Donnell Bay, 64°; and Adelaide, 83°. In Northern Territory: Daly Waters, 29·95 and 96°; Port Darwin, 29·87 and 87°.

Victoria.—Generally fine, with light N. to E. winds, fallen barometers, and smooth to moderate sea; squally at Wilson's Promontory, foggy at Cape Schanck. Extremes of barometers and temperature: Cape Otway, 30·11; Echuca, 29·96 and 81°; Hamilton, 60°.

Tasmania.—Generally fine, but cloudy, with light variable winds and calms, fallen barometers, and smooth sea (rough sea off Falmouth). Extremes of barometers and temperature: Falmouth, 30·05; Hobart, 29·97 and 62°; Southport, 55°.

New Zealand.—Showery on North Island, fine in extreme south; easterly winds; rough sea on the West Coast; 1·60 inch rain fallen at Wellington. Barometers: Russell, 29·8; Wellington, 30·1; and Bluff, 30·2.

New South Wales.—Generally fine and warm, with light N.E. to S.E. winds, and smooth to moderate sea. Barometers have fallen in west parts, but risen slightly on the coast. During the last 48 hours rain has fallen in the eastern division, very heavy at Orange and Mount Victoria, but generally light. Extremes of barometers and temperature at 9 a.m.: Port Macquarie, 30·18; Gabo Island, 29·96; Deniliquin, 90°; and Mount Victoria, 63°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea-level, at 9 a.m., 30·110. Extra stations: Lake Cudgelligo, max. 92°, min. 57°, fine, clear, and warm. For further particulars see map.

Queensland.—Generally fine, with S.E. to S.W. winds in south parts, calms in north, risen barometers and smooth sea. Rainfall: Brisbane, 0·51; Rockhampton, 0·02; and Cooktown, 0·01; Extremes of barometers and temperature: Cooktown, 30·15 and 90°; Townsville, 29·80; and Brisbane, 77°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E., 28, fine, smooth sea, temperature 63°; Cape Otway, S.S.E., 18, fine, smooth sea, temperature 64°; Melbourne, S., 18, fine, temperature 68°; Cape Schanck, S.S.E., 8, fine but cloudy, smooth sea, temperature 66°; Wilson's Promontory, W., 23, fine and squally, smooth sea, temperature 66°; Lakes' Entrance, calm, cloudy, and threatening, temperature 70°.

New South Wales.—Menindie, calm, cloudy, and warm, temperature 85°; Wentworth, N.W., 14, fine and hot, temperature 80°; Deniliquin, calm, fine, and warm, temperature 89°; Eden, E., 14, fine, smooth sea, temperature 71°; Moruya, N.E., 28, thunderstorm, smooth sea, temperature 70.; Cape St. George, W., 42, fine, smooth sea, temperature 69°; Sydney, N.E., 18, fine and clear, moderate sea, temperature 72°; Newcastle, N.E., 14, fine, smooth sea, temperature 71°; Port Macquarie, E., 14, fine, moderate sea, temperature, 78°; Clarence River, S.E., 14, fine, smooth sea, temperature 77°; Walgett, E., 14, fine, temperature 85°; Dubbo, E., 14, fine but cloudy, temperature 78°; Goulburn, W., 14, fine, temperature 71°. At Sydney, thunderstorm came up about 7 p.m., with very vivid lightning; rain commenced about 7.45 p.m.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

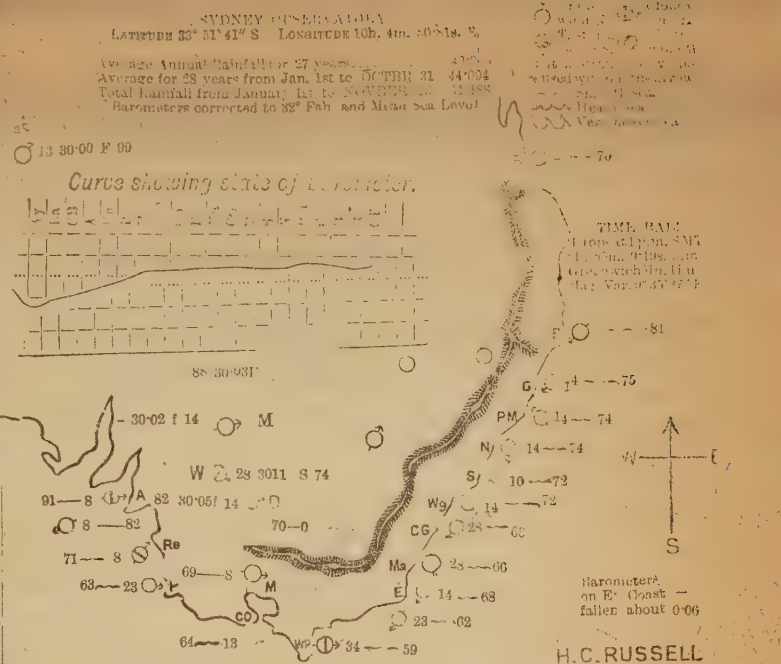
Macintyre: At Mungindi, 19 feet. Barwon: At Mogil Mogil, 18 feet 6 inches; at Walgett, 27 feet 9 inches. Namoi: At Walgett, 18 feet. Culgoa: At Goodooga, 3 feet 1 inch. Darling: At Brewarrina, 19 feet; at Bourke, 34 feet; at Louth, 33 feet 6 inches; at Tilpa, 35 feet 9 inches; at Wilcannia, 31 feet 6 inches; at Pooncarie, 24 feet; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 4 feet: at Hay, 6 feet; at Balranald, 11 feet 11 inches. Murray: At Albury, 3 feet 4 inches; at Euston, 13 feet 4 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 23.

Sun rises at 4.46, sets at 6.47; Moon, 3.12 a.m., 3.40 p.m.; Mercury, 5.53 a.m., 8.19 p.m.; Venus, 4.41 a.m., 6.33 p.m.; Mars, 7.4 a.m, 9.31 p.m.; Jupiter, 3.0 a.m., 3.53 p.m.; Saturn, 10.25 p.m., 8.27 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 23, 5.46 a.m., 6.19 p.m.

Stations	wt	M'x	m'n	r'n
Albury	b	90	57	0
Armidale	b	96	55	0·03
Balranald	h	110	60	0
Bathurst	b	83	51	0
Bend'm'r	b	81	54	0
Bodalla ..	b	81	52	0·05
Bourke ..	b	105	74	0
Br'w rrina	h	101	60	0
Bundarra	b	77	54	0·12
C'md'n H	b	78	66	0
C.St. Geo	h	72	57	0
Carcoar ..	b	85	62	0
Casino ..	b	83	52	0
Casilis ..	b	81	63	0
Clarence	b	84	65	0
C'nd'b'lin	b	96	51	0
Cooma ..	b	86	42	0·07
Coonab'n	b	86	55	0
Cowra ..	b	93	65	0
Deniliq'n	h	104	57	0
Dubbo ..	b	92	58	0·38
Eden	h	73	68	0
Euston ..	c	104	58	0
Forbes ..	b	—	55	0
Gl'n Inn's	b	82	51	0
Goulburn	b	86	45	0
Grafton ..	b	89	62	0·02
Gulgong	b	85	55	0
Gunned'h	b	89	60	0·30
Hay	c	98	63	0
Inverell ..	b	83	58	0
Kiandra	b	79	38	0
Lismore	b	88	63	0
Maitland	b	85	62	0·26
Marsdens	b	90	70	0
Menindie	b	96	74	0
Molong ..	b	90	56	0
M'r'ng'r'll	b	90	63	0
Moree ..	b	90	57	0·03
Moruya ..	b	74	55	0·11
Moss Vale	b	80	54	0·25
Mt. Hope	b	102	—	0
M. Vict'ria	b	83	47	0
Mudgee	b	89	54	0
N'r'mb'h	b	82	39	0
N'rr'ndi	b	79	61	0
Mus'br'k	b	95	57	0
Narrabri	b	90	61	0
Newcastle	b	77	63	0·68
Orange ..	b	78	52	0
Picton ..	b	83	55	0·27
P. M'q'rie	b	78	61	0
P. St'ph'n	c	77	58	1·65
Q'nbeyan	b	81	55	0·04
Quirindi	b	86	61	0
Singleton	b	85	61	0
Sydney ..	b	74	61	0.68
Tamw'rth	b	84	57	0
Taralga ..	b	80	47	0
Taree	b	82	65	0·06
T'nt'rfield	b	81	71	0·19
Wagga ..	b	—	60	0
Walcha ..	b	77	48	0
Walgett ..	b	98	69	0
Warrah ..	b	86	60	0
W'ntw'rth	g	101	67	0
W'll'ng'ng	b	78	59	0
Young ..	b	94	56	0



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Western Australia.—Generally fine, with light S.E. to S.W. winds, fallen barometers, and moderate sea; cloudy between Geraldton and Albany. Extremes of barometers and temperature: Geraldton, 30·05; Albany, 29·54; Cossack, 81°; and Perth, 62°.

South Australia.—Generally hot and suitry, with overcast sky inland, scattered clouds on the coast, fresh N. to N.E. winds, fallen barometers, and smooth sea. Rainfall: Port Darwin, 0·58; Daly Waters, 0·06; Alice Springs, 0·05; and Wallaroo, 0·03 inches. Extremes of barometers and temperature on the coast: M'Donnell Bay, 29·94 and 62°; Streaky Bay, 29·74; and Adelaide, 91°. Northern Territory; Daly Waters, 29·99 and 89°; Port Darwin, 29·87 and 85°.

Victoria.—Generally fine, with light N. to E. winds, fallen barometers, and moderate sea; squally and threatening at Wilson's Promontory. Extremes of barometers and temperature: Lake's Entrance, 30·13; Ballarat, 29·89 and 80°; Wilson's Promontory, 59°.

Tasmania.—Generally fine, with light variable winds, risen barometers, and moderate sea. Rainfall: 0·16 inch at Falmouth. Extremes of barometers and temperature: Falmouth, 30·21 and 54°; Circular Heads, 30·15; and Low Heads, 60°.

New Zealand.—Generally fine, with variable winds and calm; and barometers at 29·9.

New South Wales.—Generally fine and warm, with light N.E. to S.E. winds, almost steady barometers, and smooth sea. During the last 24 hours light rain has fallen at scattered places in the Eastern division; heaviest at Port Stephens, where over 1¼ inch fell. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·12; Menindie, 30·02; Bourke, 88°; and Cooma, 54°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea-level at 9 a.m., 30·121. Extra station: Lake Cudgellico, max. 88°, min. 65°, fine, clear, and hot. For further particulars see map.

Queensland.—Generally fine and clear, with S.W. winds in south parts, and S.E. wind in north, almost steady barometers, and moderate to rough sea. Extremes of barometers and temperature: Cooktown, 30·12 and 90°; Townsville, 29·80; and Cape Moreton, 71°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.S.E., 18, fine, smooth sea, temperature 69°; Cape Otway, E., 34, fine and hazy, moderate sea, temperature 65°; Melbourne, E., 18, fine and hazy, temperature 87°; Cape Schanck, E.N.E., 8, fine but cloudy, smooth sea, temperature 56°; Lakes Entrance, E.N.E., 10, fine and squally, rough sea, temperature 62°.

New South Wales.—Menindie, calm, dull and close, temperature 88°; Wentworth, E.N.E., 14, dull and hot, temperature 90°; Deniliquin, E.N.E., 11, cloudy and hot, temperature 90°; Eden, S.E., 28, fine, smooth sea, temperature 63°; Moruya, S.S.E., 28, fine, smooth sea, temperature 68°; Cape St. George, S.E., 28, fine, smooth sea, temperature 69°; Sydney, S.E., 12, fine, smooth sea, temperature 72°; Newcastle, S.E., 14, fine, smooth sea, temperature 72°; Port Macquarie, S.E., 28, fine, smooth sea, temperature, 80°; Clarence River, S.E., 14, dull, smooth sea, temperature 76°; Dubbo, calm, fine but cloudy, temperature 73°; Goulburn, N.E., 14, fine, temperature 73°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 17 feet 6 inches. Barwon: At Mogil Mogil, 19 feet; at Walgett, 27 feet 3 inches. Namoi: At Walgett, 17 feet 6 inches. Culgoa: At Goolooga, 3 feet. Darling: At Brewarrina, 18 feet; at Bourke, 33 feet 7 inches; at Louth, 33 feet 8 inches; at Tilpa, 36 feet 1 inch; at Wilcannia, 31 feet 6 inches; at Menindie, 27 feet 6 inches; at Pooncarie, 24 feet 6 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 3 feet 11 inches; at Hay, 6 feet 5 inches; at Balranald, 11 feet 10 inches. Murray: At Albury, 3 feet 2 inches; at Euston, 13 feet 4 inches.

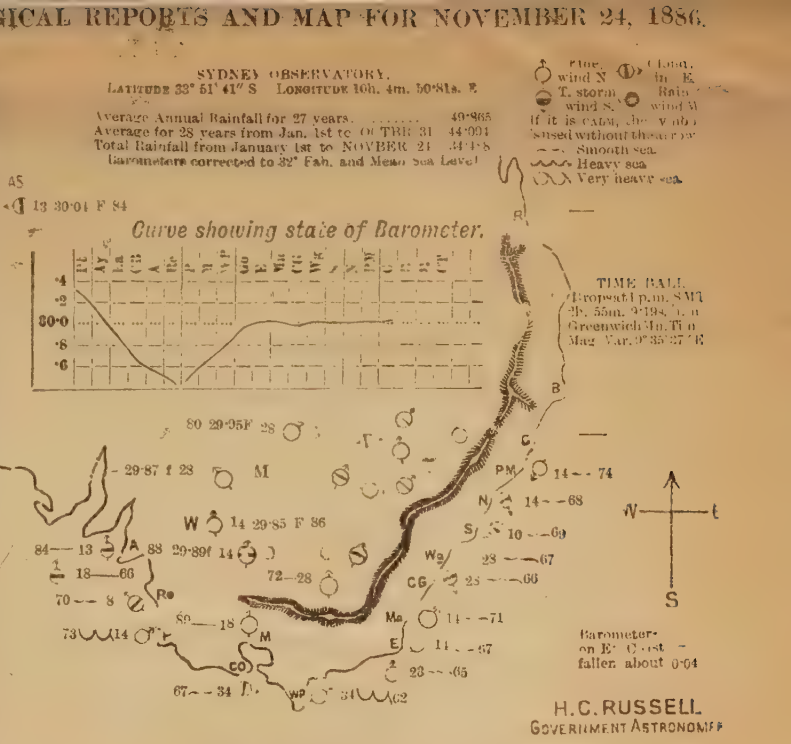
ASTRONOMICAL MEMORANDA FOR NOVEMBER 24.

Sun rises at 4.46, sets at 6.48; Moon, 3.53 a.m., 4.45 p.m.; Mercury, 5.50 a.m., 8.14 p.m.; Venus, 4.42 a.m., 6.36 p.m.; Mars, 7.4 a.m, 9.31 p.m.; Jupiter, 2.57 a.m., 3.50 p.m.; Saturn, 10.21 p.m., 8.23 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 24: 6.46 a.m., 7.12 .m.

METEOROLOGICAL REPORTS AND MAP FOR NOVEMBER 24, 1886.

Stations	wt	Mx	m	R'in
Albury	b	94	66	0
Armidale	b	87	52	0
Balranald	b	110	68	0
Bathurst	c	87	54	0
Bend'm'r	b	82	56	0
Bodalla ..	b	76	49	0
Bourke ..	b	107	74	0
Br'w'rrina	c	109	61	0
Bundarra	c	70	57	0
C'wd'n H	b	76	70	0
C.St.Geo	c	72	56	0
Carcoar ..	g	77	66	0
Casino ..	b	88	54	0·14
Cassilis ..	c	81	64	0
Clarence	–	–	–	–
C'nd'b'lin	c	99	59	0
Cooma ..	c	86	54	0
Coonab'n	c	88	55	0
Cowra ..	g	100	69	0
Deniliq'n	c	104	59	0
Dubbo ..	b	92	60	0
Eden	b	74	55	0
Euston ..	b	106	69	0
Forbes ..	b	—	55	0·05
Gl'n Inn's	b	75	49	0·19
Goulburn	g	89	54	0
Grafton ..	c	87	59	0·14
Gulgong ..	c	85	54	0
Gunned'h	c	90	61	0
Hay	c	100	70	0
Inverell ..	b	84	54	0
Kiandra	t	85	45	0·05
Lismore	b	84	62	0
Maitland	b	85	60	0
Marsdens	b	93	76	0
Menindie	b	95	76	0
Molong ..	r	91	51	0
M'r'ng'r'll	b	94	62	0
Moree ..	g	92	55	0
Moruya ..	b	73	55	0
Moss Vale	u	76	57	0
Mt. Hope	u	99	—	0·07
M.Vict'ria	c	83	50	0
Mudgee	c	90	54	0
N'rr'mb'h	c	70	59	0·02
M'rr'rndi	c	79	64	0
Mus'lbr'k	b	89	76	0
Narrabri	b	90	61	0
Newcastle	g	77	67	0
Orange ..	c	81	54	0
Picton ..	u	72	61	0
P. M'q'rie	b	78	55	0
P. St'ph'n	b	79	56	0
Q'nbeyan	b	79	59	0
Quirindi	b	93	61	0
Singleton	u	84	65	0
SYDNEY ..	c	76	64	0
Tamw'rth	b	86	61	0
Taralga ..	g	90	47	0
Taree	g	83	60	0
T'nt'rfield	b	81	66	0·49
Wagga ..	g	—	64	0
Walcha ..	b	82	49	0·09
Walgett ..	c	102	70	0
Warrah ..	b	86	57	0
W'ntw'rth	b	101	73	0
W'll'ng'ng	c	78	60	0
Young ..	g	95	59	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; t, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—In south parts showery and cloudy, with strong S.W. winds, risen barometers, and rough sea. Rainfall: Esperance Bay, 0·26; Albany, 0·28; and Perth, 0·12. Extremes of barometers and temperature: Esperance Bay, 30·02 and 54°; Perth, 30·27 and 58°.

South Australia.—Generally cloudy, gloomy, and sultry south of Alice Springs, with fresh N.E. to N.W. winds, fallen barometers, and moderate sea. Rainfall: 0·27 inch at Daly Waters. Extremes of barometers and temperature on the coast: Eucla, 29·91; M'Donnell Bay, 29·51 and 64°; Adelaide, 84°. In Northern Territory. Daly Waters, 29·98 and 89°; Port Darwin, 29·88 and 89°.

Victoria.—Generally fine, with light N. to N.E. winds, fallen barometers, and rough sea; squally on the coast. Extremes of barometers and temperature: Lake's Entrance, 29·99; Portland, 29·56; Melbourne, 89°; and Wilson's Promontory, 62°.

Tasmania.—Generally fine, with fresh northerly winds, fallen barometers, and moderate sea. Extremes of barometers and temperature: Falmouth, 30·17 and 59°; Hobart, 29·94 and 66°.

New Zealand.—Cloudy in North Island, fine at Bluff, with easterly winds. Barometers: Russell, 29·9; Wellington, 30·0; and Bluff, 30·2.

New South Wales.—Generally more or less clouded and unsettled, with light N.E. to S.E. winds and calms, fallen barometers, and smooth sea. Raining at Molong; thunderstorm at Kiandra. Light rain has fallen at scattered places in N.E., and along the Range; heaviest at Tenterfield, where half an inch fell. Extremes of barometers and temperature at 9 a.m.: Wollongong, 30·07; Wentworth, 29·85; Deniliquin, 88°; and Kiandra, 56°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea-level at 9 a.m., 30·062. Extra stations: Lake Cudgellico, max. 82°, min. 65°, fine; Clarence, max. 72°, min. 63°, fine, with light S.W. wind and smooth sea. For further particulars see map.

Queensland.—Townsville, fine weather, with light S.E. wind and smooth sea. Barometer 29·77, and temperature 85°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 34, cloudy and sultry, moderate sea, temperature 74°; Cape Otway, E.S.E., 34, cloudy and sultry, smooth sea, temperature 73°; Melbourne, N.E., 13, cloudy, temperature 93°; Cape Schanck, N., 18, hot wind and misty, smooth sea, temperature 70°; Wilson's Promontory, N.N.E., 28, fine and squally, rough sea, temperature 66°; Lakes Entrance, E., 34, fine, rough sea, temperature 60°.

New South Wales.—Menindie, W., 28, fine and hot, temperature 90°; Wentworth, N.W., 14, fine and hot, temperature 87°; Deniliquin, N.E., 14, dull and warm, temperature 89°; Eden, N.E., 28, fine, smooth sea, temperature 67°; Moruya, N.E., 14, fine, moderate sea, temperature 69°; Cape St. George, N., 14, cloudy, smooth sea, temperature 71°; Sydney, E., 6, fine, but cloudy, smooth sea, temperature 65°; Newcastle, S.E., 14, dull, smooth sea, temperature 70°; Port Macquarie, S.E., 28, fine and sultry, smooth sea, temperature, 78°; Clarence River, E., 14, fine, smooth sea; Dubbo, N., 14, fine, temperature 78.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 16 feet. Barwon: At Mogil Mogil, 18 feet; Barwon: at Walgett, 27 feet 6 inches. Namoi: At Walgett, 17 feet. Culgoa: At Goodooga, 2 feet 1 inch. Darling: At Brewarrina, 17 feet 6 inches; at Bourke, 31 feet; at Louth, 33 feet 8 inches; at Tilpa, 36 feet 5 inches; at Wilcannia, 31 feet 6 inches; at Menindie, 27 feet 6 inches; at Pooncarie, 24 feet 5 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 3 feet 8 inches; at Hay, 6 feet 4 inches; at Balranald, 11 feet 10 inches. Murray: At Albury, 3 feet 11 inches; at Euston, 13 feet 4 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 25.

Sun rises at 4·45, sets at 6.49; Moon, 4.35 a.m., 5.49 p.m.; Mercury, 5.46 a.m., 8.10 p.m.; Venus, 4.42 a.m., 6.36 p.m.; Mars, 7.3 a.m, 9.30 p.m.; Jupiter, 9.53 a.m., 3.47 p.m.; Saturn, 10.17 p.m., 8.19 a.m. Full Moon, 12th; New Moon, 26th.

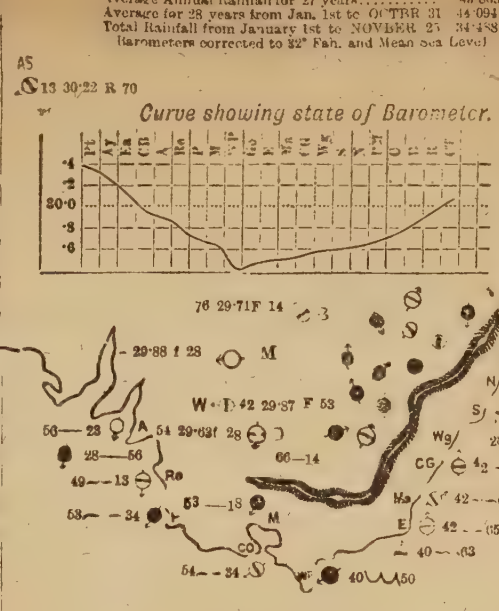
High water at Port Denison, November 25: 7.36 a.m., 7.59 p.m.

METEOROLOGICAL REPORTS AND MAP FOR NOVEMBER 25, 1886.

Stations	wt	Mx	Mn	R in
Albury	r	91	67	0·75
Armidale	u	90	56	0·12
Bedranald	b	109	57	0·17
Bathurst	r	73	55	0·20
Bend'm'r	c	82	57	0
Bodalla ..	g	78	63	0
Bourke ..	g	93	70	0·51
Brewarrina	b	103	56	0·60
Bundarra	g	80	52	0
Cmd'n H	c	75	64	0
C. St. Geo	c	76	62	0
Carcoar ..	r	70	61	0·15
Casino ..	c	89	53	0
Cassilis ..	r	73	63	0
Clarence	g	85	64	0
Cond'b'lin	g	87	56	0·36
Cooma ..	c	86	53	0
Coonab'n	r	84	60	0·25
Cowra ..	r	88	68	0·28
Deniliq'n	c	101	48	0·57
Dubbo ..	r	89	63	0·33
Eden	u	70	61	0·12
Euston ..	c	109	55	0
Forbes ..	r	—	56	0·72
G'n Inn's	g	84	54	0
Goulburn	r	90	55	0·02
Ea.		23–61		
Grafton ..	c	90	62	0
Gulgong	c	76	56	0·15
Gunned'h	r	85	67	0
Hay	r	95	56	0·34
Inverell ..	r	85	62	0
Kiandra	r	77	50	0·32
Lismore	c	89	62	0·07
Maitland	g	86	54	0
Marsdens	r	86	69	0·30
Menindie	b	99	64	0·20
Molong ..	r	79	53	0·22
M'r'ng'r'll	r	87	53	0·38
Moree ..	g	85	61	0
Moruya ..	c	75	64	0
Moss Vale	r	71	58	0
Mt. Hope	r	100	—	0·15
M. Victoria	r	71	52	0
Mudgee	r	83	56	0·22
M'rr'mb'h	c	90	58	0·27
M'rr'r'ndi	c	78	62	0
Mus'lbr'k	g	91	57	0
Narrabri	c	90	57	0
Newcastle	b	78	54	0
Orange ..	r	75	58	0·19
Picton ..	c	74	61	0
P. M'q'rie	c	78	62	0
P. St'ph'n	c	76	61	0
Q'nbeyan	u	76	60	0
Quirindi	g	87	41	0
Singleton	g	79	63	0
Sydney ..	u	71	65	0
Tamw'rth	g	87	62	0
Taralga ..	r	76	55	0·30
Taree	c	78	60	
Tnt'rfield	g	81	68	
Wagga ..	r	—	65	1·00
Walcha ..	g	77	50	0·10
Walgett ..	r	92	68	0·35
Warrah ..	c	85	63	0
W'ntw'rth	g	103	52	0·33
W'll'ng ng	c	75	64	0
Young ..	r	82	59	0·38

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·8s. E

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to OCTBR 31 44·094
Total Rainfall from January 1st to NOVBER 25 34·488
Barometers corrected to 32° Fah. and Mean Sea Level



Barometers on E. Coast — fallen about 0·04

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:— Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along westwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with clouds in places in south parts, light S.E. to S.W. winds, risen barometers, and moderate sea. Extremes of barometers and temperature: Perth 30·34; Ashburton, 29·91 and 90°; Esperance Bay, 59°.

South Australia.—Generally more or less clouded, with light rain in places, strong squally W. to S.W. winds, risen barometers, and moderate to rough sea. Rain has fallen south of Tennant's Creek; heaviest at Tamunda, 1·12; Freeling, 1·10; Clare and Watervale, 1·05. Extremes of barometers and temperature: Eucla, 30·18 and 61°; Robe, 29·76 and 49°.

Victoria.—Generally showery and squally, with strong S.W. wind, fallen barometers, and rough sea. Rainfall: Melbourne, 2·00; Portland, 0·75; Wilson's Promontory, 1·10; Hamilton, 0·46, and other places lesser quantities. Extremes of barometers and temperature: Portland, 29·68; Wilson's Promontory, 29·41; Horsham, 66°; and Ballarat, 51°.

Tasmania.—Raining heavily at Low Heads and Hobart, with east wind and calm; barometers, 29·43 and 29·46; temperature, 59° and 53°; rainfall, 1·22 and 0·72 inches respectively.

New Zealand.—Generally unsettled, with fresh N.W. to S.W. winds. Rough sea at Gisborne and on the N.W. coast. Barometers: Russell, 30·0; along the east coast, 30·2; in N.W., 30·4.

New South Wales.—Cloudy, gloomy, and overcast throughout; raining more or less heavily along the western slope of the range, from Albury and Hay in south to Walgett and Inverell in north. The winds are fresh northerly, barometers have fallen, and the sea smooth. During the last 24 hours light rain has fallen west of the range generally, principally in south, and heaviest at Wagga, Forbes, and Albury, where from ¼ to 1 inch were recorded. Extremes of barometers and temperature at 9 a.m.: Wentworth, 29·97; Gabo Island, 29·51; and Bourke, 76°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea-level at 9 a.m., 29·649. Extra stations: Lake Cudgellico, max. 70°, min. 52°, rainfall 0·25, and cloudy. For further particulars see map.

Queensland.—Generally fine, with N.E. and NW. winds and moderate sea. Extremes of barometers and temperature: Cooktown, 30·07 and 88°; Townsville, 29·69; and Cape Moreton, 73°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 40, squally, smooth sea, temperature 58°; Cape Otway, S.W., 40, cloudy, rough sea, temperature 56°; Melbourne, W.S.W., 13, showery, temperature 55°; Cape Schanck, S.W., 18, cloudy, moderate sea, temperature 64°; Wilson's Promontory, W.S.W., 40, squally, rough sea, temperature 54°.

New South Wales.—Wentworth, W., 14, stormy, raining, temperature 63; Eden, N.E., 14, showery, smooth sea, temperature 65°; Moruya, N.E., 14, thick rain, smooth sea, temperature 69°; Cape St. George, W., 58, cloudy, moderate sea, temperature 67°; Sydney, E.N.E., 12, threatening, moderate sea, temperature 64°; Newcastle, N.W., 14, raining, smooth sea, temperature 73°; Port Macquarie, W., 28, raining, smooth sea, temperature, 76°; Clarence River, W., 14, dull, smooth sea, temperature 78°; Dubbo, calm, cloudy, temperature 69°; Goulburn, N.W., 14, showery, temperature 69°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 15 feet. Barwon: At Mogil Mogil, 18 feet; at Walgett, 27 feet 10 inches. Namoi: At Walgett, 16 feet 4 inches. Culgoa: At Goodooga, 2 feet 10 inch. Darling: At Brewarrina, 18 feet; at Bourke, 30 feet; at Louth, 33 feet 8 inches; at Tilpa, 36 feet 3 inches; at Wilcannia, 31 feet 6 inches; at Menindie, 27 feet 6 inches; at Pooncarie, 24 feet 5 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 3 feet 8 inches; at Hay, 5 feet 10 inches; at Balranald, 11 feet 9 inches. Murray: At Albury, 2 feet 10 inches; at Euston, 13 feet 4 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 26.

Sun rises at 4.45, sets at 6.50; Moon, 5.21 a.m., 6.51 p.m.; Mercury, 5.43 a.m., 8.5 p.m.; Venus, 4.42 a.m., 6.40 p.m.; Mars, 7.3 a.m, 9.29 p.m.; Jupiter, 2.49 a.m., 3.44 p.m.; Saturn, 10.18 p.m., 8.15 a.m. Full Moon, 12th; New Moon, 26th.

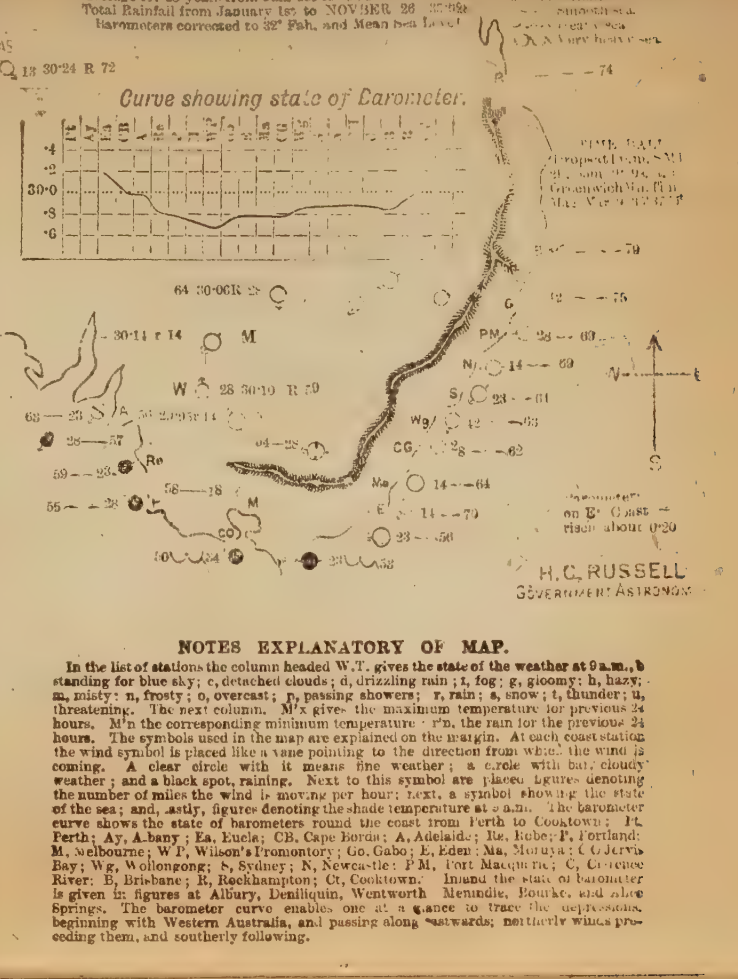
High water at Fort Denison, November 25: 8.21 a.m., 8.43 p.m.

METEOROLOGICAL REPORTS AND MAP FOR NOVEMBER 26, 1886.

Stations	wt	Mx	mn	R in
Albury	c	84	46	0·25
Armidale	b	67	52	0·31
Balranald	b	81	50	0·03
Bathurst	b	63	42	0·46
Bend'm'r	c	68	48	0·51
Bodalla ..	b	75	41	0·36
Bourke ..	b	82	54	0
Br'w rrina	b	84	41	0
Bundarra	b	67	53	0·70
C'md'n H	b	77	62	0·90
C. St. Geo	b	71	51	0
Carcoar ..	b	65	48	0·98
Casino ..	b	82	61	0·07
Cassilis ..	c	72	53	0·48
Clarence	b	74	64	0·11
C'nd'b'lin	b	79	36	0·04
Cooma ..	b	66	35	0·27
Coonab'n	b	72	46	0·29
Cowra ..	b	71	52	0·47
Deniliq'n	b	69	36	0·03
Dubbo ..	b	71	45	1·41
Eden	b	70	50	0·66
Euston ..	b	69	39	0
Forbes ..	b	—	53	0·16
Gl'n Inn's	b	60	50	0·43
Goulburn	b	68	40	0·19
Grafton ..	c	92	68	0·16
Gulgong	b	70	45	1·32
Gunned'h	b	74	50	0·37
Hay	c	91	46	0·02
Inverell..	b	77	54	0·83
Kiandra	n	56	27	1·15
Lismore	c	79	68	0·01
Maitland	b	80	54	0·35
Marsdens	b	76	55	0·40
Menindie	b	72	57	0
Molong ..	b	66	45	0·88
M'r'ng'r'll	g	68	50	0·08
Moree ..	b	73	50	0·11
Moruya..	b	72	39	0·42
Moss Vale	b	64	46	0·29
Mt. Hope	b	72	—	0·06
M. Vict'ria	b	63	39	0·37
Mudgee	c	68	41	0·83
M'rr'mb'h	b	60	50	0·35
M'rr'ndi	b	69	54	0·40
Mus'lbr'k	b	84	48	0·36
Narrabri	b	92	57	1·00
Newcastle	b	76	55	0·22
Orange ..	b	75	40	0·73
Picton ..	b	69	46	0·31
P. M'q'rie	b	81	58	0·51
P. St'ph'n	b	81	52	0·50
Q'nbeyan	c	66	47	1·05
Quirindi	b	71	51	0·29
Singleton	b	80	58	0·30
Sydney ..	b	70	56	0·54
Tamw'rth	b	73	51	0·26
Taralga ..	b	64	40	0·45
Taree	b	8	60	0·21
T'nt'rfield	b	87	62	0·47
Wagga ..	c	—	43	0·37
Walcha ..	c	63	44	0·26
Walgett..	b	74	54	0·20
Warrah ..	b	69	42	0·29
W'ntw'rth	b	64	46	0·02
W'll'ng ng.	b	71	54	0·12
Young ...	b	62	44	0·41

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·805
Average for 28 years from Jan. 1st to OCTBR 31 44·094
Total Rainfall from January 1st to NOVBER 26 [illegible]
Barometers corrected to 32° Fah. and Mean Sea Level



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; l, fog; g, gloomy: h, hazy; m, misty: n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, astly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown; Pt. Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with N.E. to S.E. winds along the west coast, cloudy and gloomy in south parts, with westerly winds and moderate sea. Rainfall: 0·01 inch at Albany. Extremes of barometers and temperature: Esperance Bay, 30·24 and 58°; Cossack, 29·82; and Ashburton, 82°.

South Australia.—Generally cloudy south of Port Augusta, with showers and light rain falling in places, fresh N.W. to S.W. winds, risen barometers, and moderate to rough sea. Rain has fallen on and near the coast, but partial; heaviest in S.E. parts; Lucindale, 0·59; Kingston, 0·49; Robe, 0·22; Ade'a'de, 0·17; and at other stations lesser quantities. Extremes of barometers and temperature on the coast: Eucla, 30·18 and 67°; Robe, 29·75; and Cape Borda, 57°. In Northern Territory: Daly Waters 29·98 and 81°; Port Darwin, 29·82 and 86°.

Victoria.—Showery in S.W. and W. parts, cloudy and unsettled in N.E., with fresh N.W. to W. winds, risen barometers, and rough sea. Rainfall: Lakes' Entrance, 0·93; Omeo, 0·72; Wilson's Promontory, 0·70; Hamilton, 0·25; Cape Schanck, 0·20; Ballarat, 0·17; Portland and Cape Otway, 0·18 and Melbourne, 0·13. Extremes of barometers and temperature: Horsham, 29·87 and 60°; Wilson's Promontory, 29·65; and Omeo, 50°.

Tasmania.—Generally cloudy and showery, with fresh W. to S.W. winds, risen barometers, and moderate to rough sea. Rainfall: Southport, 1·67; Falmouth, 1·53; Hobart, 1·40; Low Heads, 0.74; and Circular Heads, 0·11. Extremes of barometers and temperature: Circular Heads, 29·62 and 45°; Hobart, 29·45; and Falmouth, 54°.

New South Wales.—Generally fine and cool, with fresh N.W. to S.W. winds, risen barometers, and smooth sea. Cloudy at a few scattered stations. Heavy frost at Kiandra. During the last 24 hours light rain has fallen generally, heaviest along the western slope of the range; Dubbo, Gulgong, Kiandra, Queanbeyan, and Narrabri report from 1 to 1½ inch fallen. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·14, Cape St. George, 29·72, Clarence Heads and Lismore 75°, Mount Victoria and Goulburn 49°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea-level at 9 a.m., 29·840. Extra stations: Lake Cudgelico, max. 74°, min. 48°, fine; Camden, rainfall 0·50, fine weather. For further particulars see map.

Queensland.—Generally cloudy and unsettled, with N. to W. winds in south, and calms in north, fallen barometers, and moderate sea. Rainfall: Rockhampton 0·61, Brisbane 0·18, Cape Moreton 0·15, and Townsville 0·08. Extremes of barometers and temperature: Cooktown, 30·01 and 89°; Townsville, 29·94; and Cape Moreton, 72°.

New Zealand.—Generally fine, with easterly winds, passing showers, and squally at Russell. Barometers: Russell, 30·1; Wellington, 30·3; and Bluff, 30·2.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., gloomy, smooth sea, temperature 60°; Cape Otway, W., 42, squally, rough sea, temperature 60°; Melbourne, W.N.W., 18, showery, temperature 56°; Cape Schanck, W., 12, showery, moderate sea, temperature 61°; Wilson's Promontory, W., 24, squally, rough sea, temperature 53°; Lake Entrance, N.W., 14, fine, temperature 65°.

New South Wales.—Menindie, S., 14, fine and warm, temperature 71°; Wentworth, W., 14, fine and cool, temperature 64; Deniliquin, N.W., 14, cloudy, temperature 61; Eden, S.E., 14, fine, smooth sea, temperature 62°; Moruya, N.E., 14, fine, smooth sea, temperature 71°; Cape St. George, W., 24, hail and fresh, smooth sea, temperature 66°; Sydney, S.W., 16, fine, few scattered clouds, smooth sea, temperature 69°; Newcastle, N., 14, fine, smooth sea, temperature 68°; Port Macquarie, S.S.E., 42, fine, smooth sea, temperature, 77°; Clarence River, S., 14, fine, smooth sea, temperature 78°; Dubbo, S.W., 14, fine, temperature 66°; Goulburn, W.N.W., 14, fine, temperature 52°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 15 feet. Barwon: At Mogil Mogil, 17 feet; at Walgett, 27 feet 6 inches. Namoi: At Walgett, 15 feet 4 inches. Culgoa: At Goodooga, 2 feet 9 inch. Darling: At Brewarrina, 17 feet 9 inches; at Bourke, 20 feet; at Louth, 33 feet 6 inches; at Tilpa, 36 feet 10 inches; at Wilcannia, 31 feet 6 inches; at Menindie, 27 feet 5 inches; at Pooncarie, 24 feet 5 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 3 feet 6 inches; at Hay, 5 feet 3 inches; at Balranald, 11 feet 8 inches. Murray: At Albury, 2 feet 11 inches; at Euston, 13 feet 5 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 27.

Sun rises at 4.45, sets at 6.51: Moon, 6.10 a.m., 7.10 p.m.; Mercury, 5.40 a.m., 8. p.m.; Venus, 4.42 a.m., 6.42 p.m.; Mars, 7 a.m, 9.28 p.m.; Jupiter, 9.46 a.m., 9.41 p.m.; Saturn, 10.9 p.m., 8.11 a.m. [Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 27: 9.4 a.m., 9.22 p.m.

METEOROLOGICAL REPORTS AND MAP FOR NOVEMBER 27, 1886.

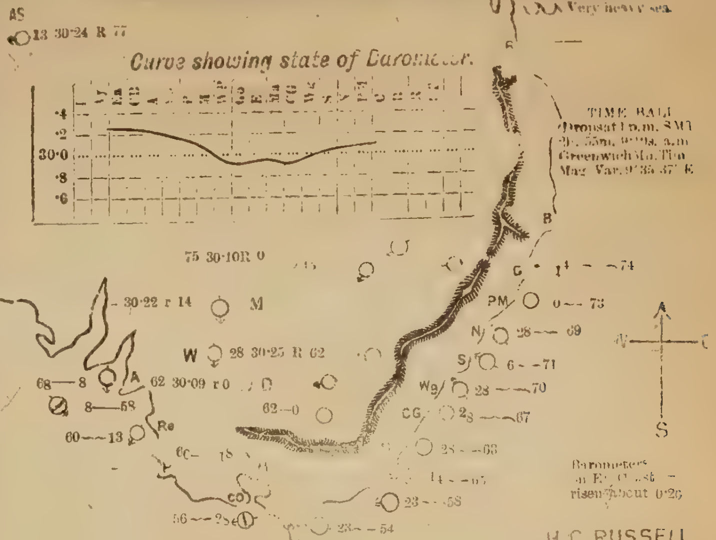
Stations	wt	Mx	mn	r'n
Albury	b	64	51	0·03
Armidale	b	86	60	0
Balranald	b	78	51	0
Bathurst	b	62	39	0
Bend'm'r	b	78	45	0
Bodalla	c	74	44	0
Bourke	b	78	58	0
Br'w'rrina	b	83	38	0
Bundarra	b	70	51	0
C'md'n H	b	73	56	0
C.St.Geo	b	74	58	0
Carcoar	b	65	46	0
Casino	c	82	61	0
Cassilis	b	69	46	0
Clarence	g	84	64	0
C'nd'b'lin	b	83	41	0
Cooma	c	65	42	0
Coonab'n	b	72	38	0
Cowra	b	73	55	0
Deniliq'n	b	71	43	0·15
Dubbo	b	71	43	0
Eden	b	70	50	0
Euston	b	77	60	0
Forbes	b	—	53	0
Gl'n Inn's	b	76	45	0
Goulburn	b	64	43	0
Grafton	c	87	61	0
Gulgong	b	74	40	0
Gunned'h	b	71	50	0
Hay	b	91	46	0·05
Inverell	b	76	50	0
Kiandra	r	55	37	0·79
Lismore	u	84	67	0
Maitland	b	79	49	0
Marsdens	b	70	58	0
Menindie	b	75	62	0
Molong	b	71	41	0
M'r'ng'r'll	c	73	53	0
Moree	b	78	52	0
Moruya	b	75	51	0
Moss Vale	b	62	48	0
Mt. Hope	b	77	—	0
M.Vict'ria	b	65	43	0
Mudgee	b	71	38	0
M'rr'mb'h	b	66	47	0
M'rr'ndi	b	68	50	0
Mus'lbr'k	b	87	45	0
Narrabri	b	85	57	0
Newcastle	b	77	55	0
Orange	b	62	39	0
Picton	b	68	43	0
P. M'q'rie	b	74	54	0
P. St'ph'n	b	76	52	0
Q'nbeyan	g	62	53	0
Quirindi	b	74	50	0
Singleton	b	78	54	0
SYDNEY	b	72	58	0
Tamw'rth	b	73	43	0
Taralga	u	70	38	0
Taree	b	82	56	0
T'nt'rfield	g	86	68	0
Wagga	b	—	53	0·06
Walcha	b	65	35	0
Walgett	b	78	52	0
Warrah	b	73	48	0
W'ntw'rth	b	77	55	0
W'll'ng'ng	b	74	55	0
Young	b	71	46	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51' 41" S   LONGITUDE 10h. 4m. 50·84s. E

Average Annual Rainfall for 27 years.......... 49·865
Average for 28 years from Jan. 1st to OCTBR 31 44·094
Total Rainfall from January 1st to NOVBER 27 37·038
Barometers corrected to 32° Fah. and Mean Sea Level

Fine wind N. Cloudy wind E. T. storm wind S. Rain wind S.
If it is calm, the symbol is used without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light easterly winds, fallen barometers, and smooth sea. Extremes of barometers and temperature: Esperance Bay, 30·21 and 63°; Cossack, 29·81; and Ashburton, 83°.

South Australia.—Generally fine and cool, with light southerly winds, risen barometers, and moderate sea. Cloudy in S.W. parts; light but scattered rain recorded south of Port Augusta; Crafers, 0·50; Lobethal, 0·55; Bordertown, 0·30; and Adelaide, 0·19. Extremes of barometers and temperature: Eucla, 30·22; M'Donnell Bay, 30·16 and 68°; and Cape Borda, 58°. In Northern Territory: Daly Waters, 30° and 81°; Port Darwin, 29·83 and 84°.

Victoria.—Generally cloudy and unsettled, with light N.W. to S.W. winds, risen barometers, and moderate sea. Rainfall: Wilson's Promontory, 0·48; Ballarat, 0·25; Hamilton, 0·22; Cape Schanck, 0·15; Cape Otway, 0·12; and Horsham, 0·33 inch. Extremes of barometers and temperature: Horsham, 30·15 and 62°; Wilson's Promontory, 29·97 and 54°.

New Zealand.—Generally fine, with northerly winds. Barometers: Russell, 30·2; Wellington, 30·1; and Bluff, 29·9.

New South Wales.—Generally fine, with light S. to W. winds, risen barometers, and smooth sea. Cloudy in north coast districts and on the range in south. Showery at Kiandra. Light rain has fallen along the Victorian border. Green Cape reports: At 9.10 this morning a severe shock of earthquake was felt for about 10 seconds, from south to north. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·25, Cape St. George, 29·92; Bourke, 75°; and Kiandra, 52°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level at 9 a.m., 30·024. Extra stations: Lake Cudgellico, max. 80°, min. 57°, fine and cool. For further particulars see map.

Queensland.—No telegram; lines interrupted.

Tasmania.—Generally cloudy and unsettled, with fresh W. to N.W. winds, risen barometers, and moderate sea. Southport rainfall, 0·25 inch; Circular Head, 0·05 and still showery. Extremes of barometers and temperature: Circular Head, 29·91 and 49°; Hobart, 29·83; and Falmouth, 57°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 30, cloudy, smooth sea; Cape Otway, W., 36, cloudy, moderate sea, temperature 60°; Melbourne, no report; Wilson's Promontory, W., 24, squally, moderate sea, temperature 59°.

New South Wales.—Menindie, S., 14, fine, clear, temperature 73°; Wentworth, N.W., fine, temperature 78°; Deniliquin, calm, fine, temperature 72°; Eden, S., 14, fine, smooth sea, temperature 60°; Moruya, E.N.E., 28, fine, smooth sea, temperature 68°; Cape St. George, 42, S.E., fine, smooth sea, temperature 67°; Sydney, E.N.E., 6, fine, smooth sea, temperature 68°; Newcastle, E., 10, fine, smooth sea, temperature 71°; Port Macquarie, E., 14, fine, smooth sea, temperature, 77°; Clarence River, E., 10, cloudy, smooth sea, temperature 76°; Dubbo, calm, fine, temperature 68°; Goulburn, N.W., 10, fine, temperature 65°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

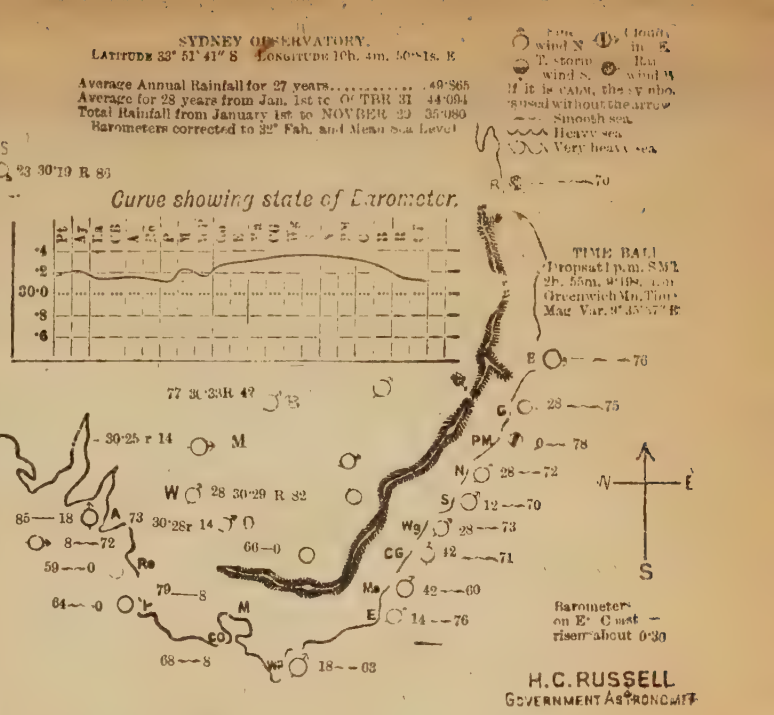
Macintyre: At Mungindi, 14 feet. Barwon: At Mogil Mogil, 16 feet; at Walgett, 28 feet 8 inches. Namoi: At Walgett, 14 feet. Culgoa: At Goodooga, 2 feet 8 inches. Darling: At Brewarrina, 17 feet 6 inches; at Bourke, 27 feet 6 inches; at Louth, 33 feet 4 inches; at Tilpa, 36 feet 11 inches; at Wilcannia, 31 feet 7 inches; at Menindie, 27 feet 4 inches; at Pooncarie, 24 feet 5 inches; at Wentworth, 16 feet 3 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 3 feet 5 inches; at Hay, 4 feet 9 inches; at Balranald, 11 feet 9 inches. Murray: At Albury, 3 feet 11 inches; at Euston, 13 feet inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 29.

Sun rises at 4.44, sets at 6.53; Moon, a.m., 5.56 p.m., Mercury, 5.31 a.m., 7.50 p.m.; Venus, 4.4 a.m., 6.17 p.m.; Mars, 7.2 a.m, 9.27 p.m.; Jupiter, 2.40 a.m., 3.51 p.m.; Saturn, p.m., 8.3 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 29: p.m.

Stations	wt	Mx	mn	r'fall
Albury	b	83	50	0
Armidale	b	86	55	0
Balranald	b	97	59	0
Bathurst	b	80	47	0
Bend'm'r	c	77	56	0·01
Bodalla ..	b	78	50	0
Bourke ..	b	92	69	0
Br'w rrina	b	96	59	0
Bundarra	b	76	50	0
C'md'n H	c	77	63	0·70
C. St. Geo	b	75	59	0
Carcoar ..	b	76	56	0
Casino ..	b	80	52	0
Cassilis ..	b	72	56	0
Clarence	b	81	70	0
C'nd'b'lin	b	87	51	0
Cooma ..	b	85	48	0
Coonab'n	b	85	52	0
Cowra ..	b	93	54	0
Deniliq'n	b	90	42	0
Dubbo ..	b	88	56	0
Eden	b	76	60	0
Euston ..	b	92	56	0
Forbes ..	b	—	53	0
Gl'n Inn's	u	82	56	0·05
Goulbu'n	b	78	55	0
Grafton ..	b	—	62	0·09
Gulgong	b	78	48	0
Gunned'h	b	88	59	0
Hay	b	87	58	0
Inverell ..	b	73	60	0
Kiandra	b	75	35	0·03
Lismore	u	80	61	0
Maitland	c	86	62	0·03
Marsdens	b	84	57	0
Menindie	b	80	67	0
Molong ..	b	83	46	0
M'r'ng'r'll	b	83	52	0
Moree ..	b	90	59	0
Moruya ..	b	74	56	0
Moss Vale	b	71	56	0
Mt. Hope	b	93	—	0
M. Vict'ria	c	78	43	0
Mudgee	b	89	50	0
N'rr'mb'h	b	56	49	0
M'rr'ndi	b	73	45	0
Mus'br'k	b	88	53	0
Narrabri	b	89	57	0·10
Newcastle	b	75	60	0
Orange ..	b	75	50	0
Picton ..	c	72	60	0·26
P. M'q'rie	c	75	57	0·14
P. St'ph'n	c	81	60	0
Q'beyan	b	73	54	0
Quirindi	b	82	51	0·30
Singleton	b	78	61	0
Sydney ..	c	72	65	0·05
Tamw'rth	b	83	56	0·25
Taralga ..	b	76	52	0
Taree	c	75	62	0·61
T'nt'rfield	r	86	39	0
Wagga ..	b	—	43	0
Walcha ..	c	68	48	0·29
Walgett ..	b	96	64	0
Warrah ..	b	82	54	0·04
W'ntw'rth	b	89	62	0
W'll'ng'ng	b	73	62	0
Young ..	b	84	47	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Eu, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Mo, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine along the west coast, with light, southerly winds; cloudy in south, with east winds. The sea is moderate. Extremes of barometers and temperature: Albany, 30·23; Carnarvon, 29·94; Esperance Bay, 67°; and Cossack, 79°.

South Australia.—Generally fine and warm, with light, northerly winds, fallen barometers, and smooth sea. Extremes of barometers and temperature on the coast: Port Augusta, 30·16; Streaky Bay, 30·12; Adelaide, 85°; and Robe, 59°. In Northern Territory: Daly Waters, 29·93 and 91°; Port Darwin, 29·80 and 90°.

Victoria.—Generally fine and clear, with light north to east winds, risen barometers, and smooth sea. Extremes of barometers and temperature: Lakes Entrance, 30·31; Hamilton, 30·07; Echuca, 61°; and Cape Schanck, 63°.

Tasmania.—Generally fine, with light variable winds and scattered clouds in south parts, risen barometers, and moderate sea. Extremes of barometers and temperature: Low Heads, 30.26 and 61°.; Southport, 30.15 and 60°.

New Zealand.—Generally fine, with variable winds and calms; cloudy in extreme north; 0·31 inch rain fell at Wellington yesterday. Barometers: Russell, 30·2; Wellington, 30·0; and Bluff, 30·1.

New South Wales.—Generally fine and warm, with fresh N.E. to E. winds, risen barometers, and smooth to moderate sea; cloudy at scattered places near the coast and mountains; raining steadily at Tenterfield. Rain has fallen at scattered stations in the eastern division of the colony, heaviest on the Manning River. Extremes of barometers and temperature at 9 a.m.: Sydney, 30·36; Hay, 30·24; Wentworth, 82°; and Mount Victoria, 59°. Extra stations: Lake Cudgellico, max. 80°, min. 53°, few clouds and cool. For further particulars see map.

Queensland.—Generally cloudy and unsettled, with light E. to S.E. winds and calms, risen barometers, and moderate sea; showery at Rockhampton and Townsville. Rainfall: Townsville, 1·40; Rockhampton, 0·99; Cooktown, 0·31; Cape Moreton, 0·25; and Brisbane, 0·12. Extremes of barometers and temperature: Cape Moreton, 30·22 and 69°; Townsville, 29·62; and Cooktown, 89°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, N., 28, fine but cloudy, smooth sea, temperature 64°; Cape Otway, W., 13, fine and hazy, smooth sea, temperature 75°; Melbourne, N.W., 28, fine, temperature 86°; Cape Schanck, N., 13, fine, smooth sea temperature 67°; Wilson's Promontory, N.N.E., 13, fine but cloudy, smooth sea, temperature 73°; Lakes Entrance, N.E., 18, fine, temperature 72.

New South Wales.—Menindie, S.W., 14, fine and hot, temperature 82°; Wentworth, N., fine and hot, temperature 78°; Deniliquin, N., fine, temperature 84°; Eden, N.E., 14, fine, smooth sea, temperature 72°; Moruya, N.E., 42, threatening in S.W., moderate sea, temperature 70°; Cape St. George, N., 42, fine, smooth sea, temperature 70°; Sydney, N.E., 28, fine and squally, moderate sea, temperature 70°; Newcastle, N.E., 28, fine, smooth sea, temperature 70°; Port Macquarie, N.E., 28, fine, smooth sea, temperature 79°; Clarence River, E., 28, fine, smooth sea, temperature 76°; Walgett, N., fine, temperature 89°; Dubbo, calm, fine and squally, temperature 72°; Goulburn, E.N.E., 14, fine, temperature 70°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

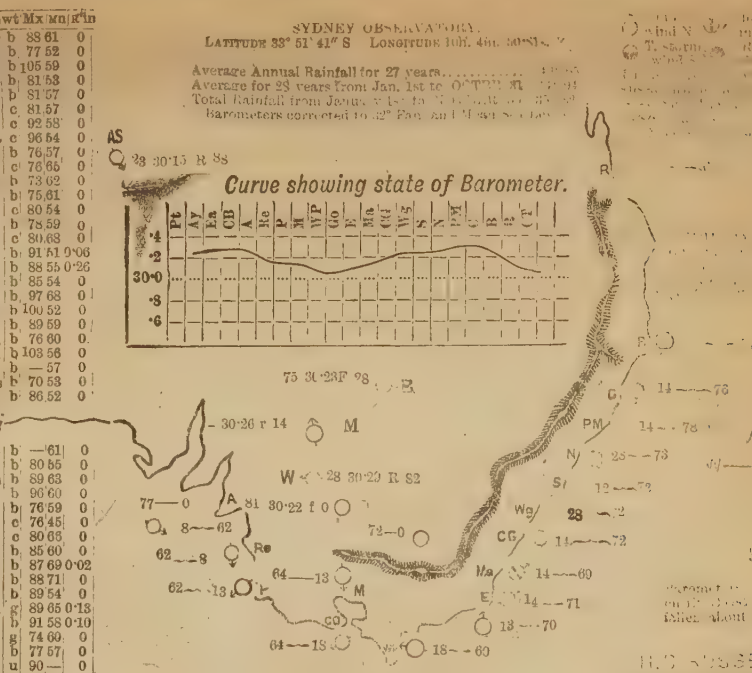
Macintyre: At Mungindi, 13 feet 6 inches. Barwon: At Mogil Mogil, 15 feet; at Walgett, 29 feet 6 inches. Namoi: At Walgett, 11 feet. Culgoa: At Goodooga, summer level. Darling: At Brewarrina, 17 feet; at Bourke, 26 feet; at Louth, 32 feet 8 inches; at Tilpa, 37 feet 1 inch; at Wilcannia, 31 feet 10 inches; at Menindie, 27 feet 4 inches; at Pooncarie, 24 feet; at Wentworth, 16 feet 7 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 5 feet 5 inches; at Hay, 4 feet; at Balranald, 11 feet 5 inches. Murray: At Albury, 4 feet; at Euston, 13 feet 6 inches.

ASTRONOMICAL MEMORANDA FOR NOVEMBER 30.

Sun rises at 4.44, sets at 6.54; Moon, 8.48 a.m., 10.22 p.m.; Mercury, 5.22 a.m., 7.38 p.m.; Venus, 4.43 a.m., 6.49 p.m.; Mars, 7.2 a.m, 9.26 p.m.; Jupiter, 2.33 a.m., 3.29 p.m.; Saturn, 9.56 p.m., 7.58 a.m. Full Moon, 12th; New Moon, 26th.

High water at Fort Denison, November 30: 11.4 a.m., 11.23 p.m.

Stations	wt	Mx	Mn	r'in
Albury	b	88	61	0
Armidale	b	77	52	0
Balranald	b	105	59	0
Bathurst	b	81	53	0
Bend'n'r	b	81	57	0
Bodalla ..	c	81	57	0
Bourke ..	c	92	58	0
Br'w rrina	c	96	64	0
Bundarra	b	76	57	0
C'md'n H	c	76	65	0
C.St.Geo	b	73	62	0
Carcoar ..	b	75	61	0
Casino ..	c	80	54	0
Cassilis ..	b	78	59	0
Clarence	c	80	63	0
C'nd'b'lin	b	91	51	0·06
Cooma ..	b	88	55	0·26
Coonab'n	b	85	54	0
Cowra ..	b	97	63	0
Deniliq'n	b	100	52	0
Dubbo ..	b	89	59	0
Eden	b	76	60	0
Euston ..	b	103	56	0
Forbes ..	b	—	57	0
Gl'n Inn's	b	70	53	0
Goulburn	b	86	52	0
Grafton ..	b	—	61	0
Gulgong	b	80	55	0
Gunned'h	b	89	63	0
Hay	b	96	60	0
Inverell ..	b	76	59	0
Kiandra	c	76	45	0
Lismore	c	80	63	0
Maitland	b	85	60	0
Marsdens	b	87	69	0·02
Menindie	b	88	71	0
Molong ..	b	89	54	0
M'r'ng'r'll	g	89	05	0·13
Moree ..	b	91	58	0·10
Moruya ..	g	74	60	0
Moss Vale	b	77	57	0
Mt. Hope	u	90	—	0
M.Vict'ria	b	80	49	0
Mudgee	b	86	52	0
W'rr'mb'h	b	76	61	0
M'rr'r'ndi	b	73	68	0·04
Mus'br'k	b	91	53	0
Narrabri	b	92	59	0
Newcastle	b	75	63	0
Orange ..	b	77	58	0·15
Picton ..	u	81	61	0
P. M'q'rie	b	80	59	0
P. St'ph'n	b	79	51	0
Q'nbeyan	b	80	62	0
Quirindi	b	82	59	0
Singleton	b	80	61	0
Sydney ..	b	74	61	0
Tamw'rth	b	83	54	0
Taralga ..	b	86	49	0
Taree	b	77	60	0·05
T'nt'rfield	g	68	56	0
Wagga ..	b	—	62	0·28
Walcha ..	b	68	43	0
Walgett..	b	92	67	0
Warrah ..	b	78	53	0·02
W'ntw'rth	b	96	45	0
W'll'ng'ng	b	77	64	0
Young ..	b	96	61	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the south coast, fine weather, with light easterly winds, risen barometers, and smooth sea. Barometers, 30·27 and 30·21; temperature, 64°.

South Australia.—Generally fine and warm, with light south-easterly winds and calms, risen barometers, and smooth sea. Extremes of barometers and temperature on the coast: Cape Borda, 30·24; Port Augusta, 30·15; Adelaide, 77°; and Robe, 62°. In Northern Territory: Daly Waters, 29·92 and 90°; Port Darwin, 29·78 and 88°.

Victoria.—Generally fine and cool, with light S. to S.W. winds, risen barometers, and smooth sea. Squally at Wilson's Promontory; sea rising at Cape Otway. Extremes of barometers and temperature: Cape Otway, 30·20; Echuca, 30·08 and 80°; Hamilton, 58°.

Tasmania.—Generally fine, but cloudy, with light N. to N. W. winds, fallen barometers, and moderate sea. Extremes of barometers and temperature: Circular Heads, 30·08 and 58°.; Southport, 29·93 and 62°.

New South Wales.—Generally fine and warm, with light N.E. to E. winds, fallen barometers, and smooth sea; cloudy in extreme north parts, and on the range in south. Light rain has fallen along the western slope of the ranges. At 3 a.m. this morning a severe shock of earthquake, lasting from 9 to 50 seconds, passed over that part of the colony situated within Orange, Picton, Cape St. George, Cooma, and Wagga. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·29; Eden, 30·09; Wentworth, 82°; and Cooma, 60°. Reading of the standard barometer at Sydney corrected to 32° Fahr., and mean sea level at 9 a.m.: 30·220". Extra station, Lake Cudgellico: Max. 71, min. 65., and threatening. For further particulars see map.

Queensland.—Generally cloudy and unsettled, with S.E. to E. winds, risen barometers, and smooth sea. Raining at Rockhampton and Townsville. Rainfall: Townville, 2·74; Rockhampton, 0·58; Cooktown, 0·38; Brisbane, 0·11; and Cape Moreton, 6·09. Extremes of barometers and temperature: Brisbane, 30·23; Cape Moreton, 69°, and rough sea; Townsville, 29·72; and Cooktown, 88°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 28, fine, smooth sea, temperature 66°; Cape Otway, W.N.W., 28, fine, smooth sea, temperature 66°; Melbourne, S.S.W., 13, fine, temperature 67°; Cape Schanck, S., 8, fine but cloudy, smooth sea, temperature 65° Wilson's Promontory, W., 18, cloudy and squally, smooth sea, temperature 68°; Lakes Entrance, W., 3, fine and hazy, temperature 72.

New South Wales.—Menindie, E., 14, fine but cloudy, temperature 84°; Wentworth, S., 14, fine and hot, temperature 81°; Deniliquin, calm, fine, and hot, temperature 88°; Eden, N.E., 14, fine, smooth sea, temperature 68°; Moruya, N., 28, thunderstorm to W., smooth sea, temperature 69°; Cape St. George, N., 42, fine, smooth sea, temperature 73°; Sydney, N.E., 20, fine, warm, and squally, moderate, 73°; Newcastle, 14, fine and fresh, smooth sea, temperature 72°; Port Macquarie, N.E., 28, fine, smooth sea, temperature 79°; Clarence River, E., 14, dull, fine, smooth sea, temperature 75°; Dubbo, calm and fine, temperature 78°; Goulburn, W., 14, fine, temperature 73.

"If the earthquake reached Sydney, it was not sufficient to record itself on the instruments, or make itself felt by observers. From the direction given by the observers in the country, the origin would seem to have been about Lake Cowal. But too much reliance must not be placed upon observations made by persons suddenly waked out of sleep.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 12 feet 6 inches. Barwon: At Mogil Mogil, 13 feet 6 inches; at Walgett, 30 feet. Namoi: At Walgett, 10 feet 6 inches. Culgoa: At Goodooga, summer level. Darling: At Brewarrina, 16 feet 9 inches; at Bourke, 7 feet 6 inches; at Louth, 32 feet 3 inches; at Tilpa, 37 feet; at Wilcannia, 31 feet 10 inches; at Menindie, 27 feet 4 inches; at Pooncarie, 24 feet; at Wentworth, 16 feet 8 inches. Murrumbidgee: At Gundagai, 9 feet; at Wagga, 4 feet 7 inches; at Hay, 3 feet; at Balranald, 11 feet 4 inches. Murray: At Albury, 3 feet 8 inches; at Euston, 13 feet 6 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 1.

Sun rises at 4.44, sets at 6.55; Moon, 9.41 a.m., 11.3 p.m.; Mercury, 5.16 a.m., 7.30 p.m.; Venus, 4.44 a.m., 6.2 p.m.; Mars, 7.1 a.m, 9.25 p.m.; Jupiter, 2.29 a.m., 3.25 p.m.; Saturn, 9.53 p.m., 7.53 a.m. Full Moon, 11th; New Moon, 25th.

High water at Fort Denison, December 1: 11.42 a.m., — p.m.

METEOROLOGICAL REPORTS AND MAP FOR DECEMBER 1, 1886.

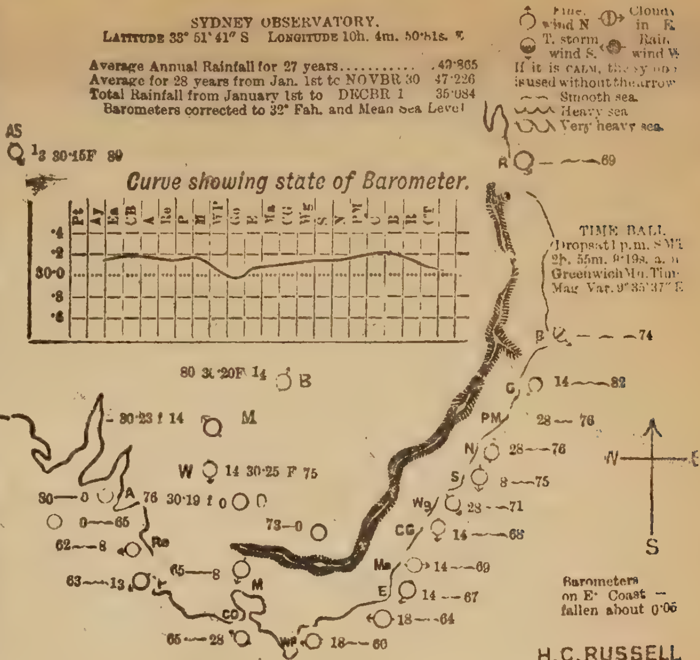
Stations	wt	Mx	mn	r'in
Albury	b	92	60	0
Armidale	b	89	56	0
Balranald	b	111	61	0
Bathurst	b	84	52	0
Bend'm'r	b	81	54	0
Bodalla ..	b	87	55	0·02
Bourke ..	b	90	68	0
Br'w rrina	b	97	52	0
Bundarra	c	77	59	0
C'md'n H	b	[illegible]	65	0
C. St. Geo	b	75	62	0
Carcoar ..	b	78	56	0
Casino ..	c	[illegible]	52	0
Cassilis ..	b	[illegible]	[illegible]	0
Clarence	b	81	67	0
C'nd'b'lin	b	96	56	0
Cooma ..	c	86	51	0
Coonab'n	b	87	55	0
Cowra ..	b	87	61	0·24
Deniliq'n	b	102	59	0
Dubbo ..	b	92	58	0
Eden	b	80	60	0
Euston ..	b	107	59	0
Forbes ..	b	—	56	0
Gl'n Inn's	b	70	55	0
Goulburn	b	86	50	0

Stations	wt	Mx	mn	r'in
Grafton ..	b	—	62	0
Gulgong	b	83	51	0
Gunned'h	b	100	64	0
Hay	b	97	68	0
Inverell ..	b	82	58	0
Kiandra	b	81	43	0
Lismore	b	80	63	0
Maitland	b	82	60	0
Marsdens	b	87	56	0
Menindie	b	84	75	0
Molong ..	b	91	51	0
M'r'ng'r'll	b	87	61	0
Moree ..	g	81	60	0
Moruya ..	b	74	58	0
Moss Vale	b	79	59	0
Mt. Hope	b	91	—	1·00
M. Vict'ria	b	81	49	0·19

Stations	wt	Mx	mn	r'in
Mudgee	b	86	52	0
M'rr'mb'h	b	88	40	0
M'rr'ndi	b	79	60	0
Mus'br'k	b	97	56	0
Narrabri	b	39	71	0
Newcastle	b	79	68	0
Orange ..	b	74	50	0
Picton ..	b	85	56	0·09
P. M'q'rie	b	82	59	0
[illegible]	b	81	58	0
Queanbeyan	b	81	59	0
Quirindi	b	85	53	0
Singleton	b	89	70	0
[illegible]	b	77	62	0
Tamw'rth	-	—	—	-
Taralga ..	b	81	50	0
Tar[illegible]	b	84	60	0
Tnt'rfield	b	70	56	0
Wagga ..	b	—	61	0
Walcha ..	b	76	47	0
Walgett ..	b	92	67	0
Warrah ..	b	88	55	0
W'ntw'rth	b	101	68	0
W'll'ng ng	b	77	64	0
Young ..	b	90	55	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51' 41" S LONGITUDE 10h. 4m. 50·61s. E

Average Annual Rainfall for 27 years........... 49·865
Average for 28 years from Jan. 1st to NOVBR 30 47·226
Total Rainfall from January 1st to DECBR 1 35·084
Barometers corrected to 32° Fah. and Mean Sea Level



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, Mx gives the maximum temperature for previous 24 hours. Mn the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine and warm, with light S. to E. winds, fallen barometers, and smooth sea. Extremes of barometers and temperature: Esperance Bay, 30·15 and 65°; Cossack, 29·77; and Carnarvon, 65°.

South Australia.—Generally fine and warm, with light W.E. to S.E. winds, fallen barometers, and smooth sea, scattered clouds north of Alice Springs; 0·93 inch rain fallen at Port Darwin. Extremes of barometers and temperature on the coast: Cape Borda, 30·20; Streaky Bay, 30·12; Adelaide, 80°; and Robe, 62°.

Victoria.—Generally fine, with light north to west winds, risen barometers, and smooth sea; squally in the Straits. Extremes of barometers and temperature: Lakes Entrance, 30·21; Wilson's Promontory, 30·08; Horsham, 71°; and Hamilton, 61°.

Tasmania.—Generally fine, with light N.W. to W. winds, steady barometers, and moderate sea. Extremes of barometers and temperature: Circular Head, 30·07; Hobart, 29·92; Low Heads, 58·05; and Falmouth, 67°.

New Zealand.—Generally fine, with strong westerly winds; showery at Bluff. Barometers: Russell, 30·2; Wellington, 29·9; and Bluff, 29·5.

New South Wales.—Generally fine, clear, and hot, with light variable winds and calms, slightly fallen barometers, and smooth sea: cloudy at a few places in north parts. Light rain fallen on the Lachlan River, and on the range west of Sydney. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·25; Cabo Island, 29·99; Hay, 83°, and Armidale, 66. Reading of the standard barometer at Sydney corrected to 32° Fahr., and mean sea level at 9 a.m.: 30·143°. Extra station, Lake Cudgellico: Max. 96, min. 61., fine and hot. For further particulars see map.

Queensland.—Cloudy, with light N.E. to E. winds in south parts; fine, with S.E. winds in north. Squally at Cooktown; sea moderately smooth. Rainfall: Rockhampton, 0·60; Cape Moreton, 0·63; Cooktown, 0·23; and Brisbane, 0·01. Extremes of barometers and temperature: Brisbane, 30·19; Cooktown, 30·00 and 89°, Cape Moreton, 70°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 23, fine, smooth sea, temperature 72°; Cape Otway, W.N.W., 23, fine, smooth sea, temperature 68°; Melbourne, S.S.W., 13, fine, temperature 77°; Cape Schanck, S., 8, fine and hazy, smooth sea, temperature 67°; Wilson's Promontory, W., 23, fine, hazy, and squally, moderate sea, temperature 65°; Lakes Entrance, S.E., 13, fine, temperature 71.

New South Wales.—Menindie, calm, fine, temperature 86°; Wentworth, N.W. 17, fine and hot, temperature 85°; Deniliquin, W., 14, fine and hot, temperature 88°; Moruya, E.S.E., 28, fine, smooth sea, temperature 70°; Cape St. George, E., 28, fine, smooth sea, temperature 71°; Sydney, E., 14, fine and hazy, smooth sea, temperature 75°; Newcastle, N.E., 14, fine, smooth sea, temperature 74°; Port Macquarie, N.E., 28, fine, smooth sea, temperature 79°; Clarence River, E., 14, dull, smooth sea, temperature 77°; Walgett, N.E., fine and sultry, temperature 90°; Dubbo, calm, fine, temperature 80°; Goulburn, N.W., 14, fine, temperature 75°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 13 feet 6 inches. Barwon: At Mogil Mogil, 13 feet 6 inches; at Walgett, 30 feet 6 inches. Namoi: At Walgett, 3 feet 10 inches. Culgoa: At Goodooga, low. Darling: At Brewarrina, 17 feet; at Bourke, 26 feet; at Louth, 32 feet 9 inches; at Tilpa, 37 feet 1 inch; at Wilcannia, 32 feet; at Menindie, 27 feet 3 inches; at Pooncarie, 24 feet; at Wentworth, 16 feet 9 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 4 feet 6 inches; at Hay, 3 feet 6 inches; at Balranald, 11 feet 3 inches. Murray: At Albury, 3 feet 8 inches; at Euston, 13 feet 6 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 2.

Sun rises at 4.44, sets at 6.56; Moon, 10.35 a.m., 11.41 p.m.; Mercury, 5.6 a.m., 7.16 p.m.; Venus, 4.45 a.m., 6.54 p.m.; Mars, 7.1 a.m., 9.24 p.m.; Jupiter, 2.2 a.m., 3.23 p.m.; Saturn, 9.49 p.m., 7.49 a.m. Full Moon, 11th; New Moon, 25th.

High water at Fort Denison, December 2: 12.1 a.m., 12.22 p.m.

METEOROLOGICAL REPORTS AND MAP FOR DECEMBER 2, 1[illegible]

Stations	W.T.	M'x'm'n	R'in
Albury	b	93 65	0
Armidale	b	103 59	0
Balranald	b	109 58	0
Bathurst	b	89 63	0·06
Bend'm'r	b	92 64	0
Bodalla ..	b	72 56	0
Bourke ..	b	96 67	0
Br'w rrina	b	109 54	0
Bundarra	b	82 62	0
C'md'n H	b	79 67	0
C. St. Geo	c	75 58	0
Carcoar ..	g	79 68	0·01
Casino ..	b	84 55	0
Cassilis ..	b	85 67	0
Clarence	c	84 67	0
C'nd'b'lin	g	90 57	0
Cooma ..	c	95 58	0
Coonab'n	b	90 63	0
Cowra ..	g	95 67	0
Deniliq'n	b	99 62	0
Dubbo ..	t	94 63	0
Eden	b	72 58	0
Euston ..	b	105 62	0
Forbes ..	b	— 57	0
Gl'n Inn's	b	94 54	0
Goulburn	b	92 57	0
Ea.			
		13–60	
Grafton..	b	— 63	0
Gulgong	b	88 67	0·10
Gunned'h	b	93 71	0
Hay	b	99 63	0
Inverell..	b	84 63	0
Kiandra..	b	82 44	0
Lismore	b	84 62	0
Maitland	b	93 58	0
Marsdens	b	92 73	0
Menindie	b	91 78	0
Molong ..	u	95 61	0
M'r'ng'r'll	b	94 61	0
Moree ..	g	85 65	0
Moruya..	b	74 59	0
Moss Vale	b	86 59	0
Mt. Hope	b	100 —	0
M. Vict'ria	b	87 58	0
Mudgee	b	92 61	0
M'r'mb'h	b	92 58	0
M'r'r'ndi	b	83 65	0
Mus'br'k	b	103 57	0
Narrabri	b	92 63	0
Newcastle	h	80 65	0
Orange ..	c	81 61	0·22
Picton ..	c	89 59	0
P. M'q'rie	b	81 62	0
P. St'ph'n	b	87 61	0
Q'nbeyan	b	86 64	0
Quirindi	b	89 68	0
Singleton	b	96 62	0
Sydney ..	h	80 66	0
Tamw'rth	h	88 63	0
Taralga ..	b	92 55	0
Taree	b	89 61	0
T'nt'rfield	b	81 55	0
Wagga ..	b	— 60	0
Walcha ..	b	81 50	0
Walgett..	c	95 71	0
Warrah ..	h	90 65	0
W'ngt'n'th	b	100 58	0
W'll'ng'ng	c	82 65	0
Young ..	h	98 61	0

SYDNEY OBSERVATORY
LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years ... 49·065
Average for 28 years from Jan. 1st to NOVBR 30 ... 47·226
Total Rainfall from January 1st to DECBR 2 ... 35·086
Barometers corrected to 32° Fah., and Mean Sea Level

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; r, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from whic. the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Eiole; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Mo, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. In and the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards, northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light S. to E. winds, fallen barometers, and moderate sea; squally from S.E. and light rain falling at Albany. Extremes of barometers and temperature: Esperance Bay, 30·04 Cossack, 29·76; Ashburton, 84°; and Geraldton, 62°.

South Australia.—Generally fine and warm, with light N.E. to S.E. winds and calms, fallen barometers, and smooth sea, cloudy north of the Peak; raining at Powell's Creek. Extremes of barometers and temperature on the coast: M'Donnell Bay, 30·07 and 62°; Eucla, 29·93; and Adelaide, 86°. In Northern Territory: Daly Waters, 29·96 and 79°; Port Darwin, 29·79 and 85°.

Victoria.—Generally fine, with light, scattered clouds and haze, fallen barometers, and smooth sea. Extremes of barometers and temperature: Lake's Entrance, 30·16; Ballarat, 29·96 and 83°; Wilson's Promontory, 58°.

Tasmania.—Generally fine, with light clouds in north, and clear sky along the east coast, steady barometers, and smooth to moderate sea. Extremes of barometers and temperature: Falmouth, 30·09; Southport, 29·96; Hobart, 70°; and Circular Heads, 59°.

New Zealand.—Fine on North island, with N.E. to N.W. winds; showery at Bluff, with strong N.W. wind. Barometers: Russell, 30·3; Wellington, 29·8; and Bluff, 29·6.

New South Wales.—Generally fine, warm, and sultry, with light N. to E. winds, almost steady barometers, and smooth sea: cloudy and gloomy west of the range, between the Lachlan and Murrumbidgee Rivers, with light rain fallen during the night. Thunderstorms occurred during the night at Orange; at 9 a.m. it was threatening at Condobolin, and thundering at Dubbo. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·22; Gabo Island, 30·05; Hay, 89°; and Cooma, 68°. Reading of the standard barometer at Sydney corrected to 32° Fahr., and mean sea level at 9 a.m.: 30·141″. Extra station, Lake Cudgellico: Max. 94, min. 70., dull and close. For further particulars see map.

Queensland.—Generally fine, with light S.E. winds, risen barometers, and moderate sea. Squally at Cooktown. Rainfall: Townsville, 0·12; Cooktown, 0·41. Extremes of barometers and temperature: Brisbane 30·18; Townsville, 29·72; Cooktown, 86°; and Cape Moreton, 70°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.S.E., 23, fine but cloudy, smooth sea, temperature 67.; Cape Otway, E.S.E., 24, cloudy, smooth sea, temperature 65°; Melbourne, S.S.W., 13, cloudy, temperature 67°; Cape Schanck, E., 23, cloudy and hazy, smooth sea temperature 65°; Wilson's Promontory, S.W., 8, fine, but cloudy, smooth sea, temperature 65°.

New South Wales.—Wentworth, N.W., cloudy, temperature 86°; Deniliquin, calm, fine, temperature 91°; Eden, E., 14, fine, smooth sea, temperature 71°; Moruya, E., 14, overcast, smooth sea, temperature 70°; Cape St. George, N. 14, cloudy, smooth sea, temperature 74°; Sydney, E.N.E., 20, fine but cloudy, moderate sea, temperature 74°; Newcastle, N.E., 14, fine, smooth sea, temperature 73°; Port Macquarie, N.N.E., 42, fine, smooth sea, temperature 78°; Clarence River, N.E., 14, fine, smooth sea, temperature 78°; Walgett, S.E., fine, temperature 90°; Dubbo, N., 14, thunderstorm all round, temperature 81°; Goulburn, N.W., 14, fine, temperature 78°.

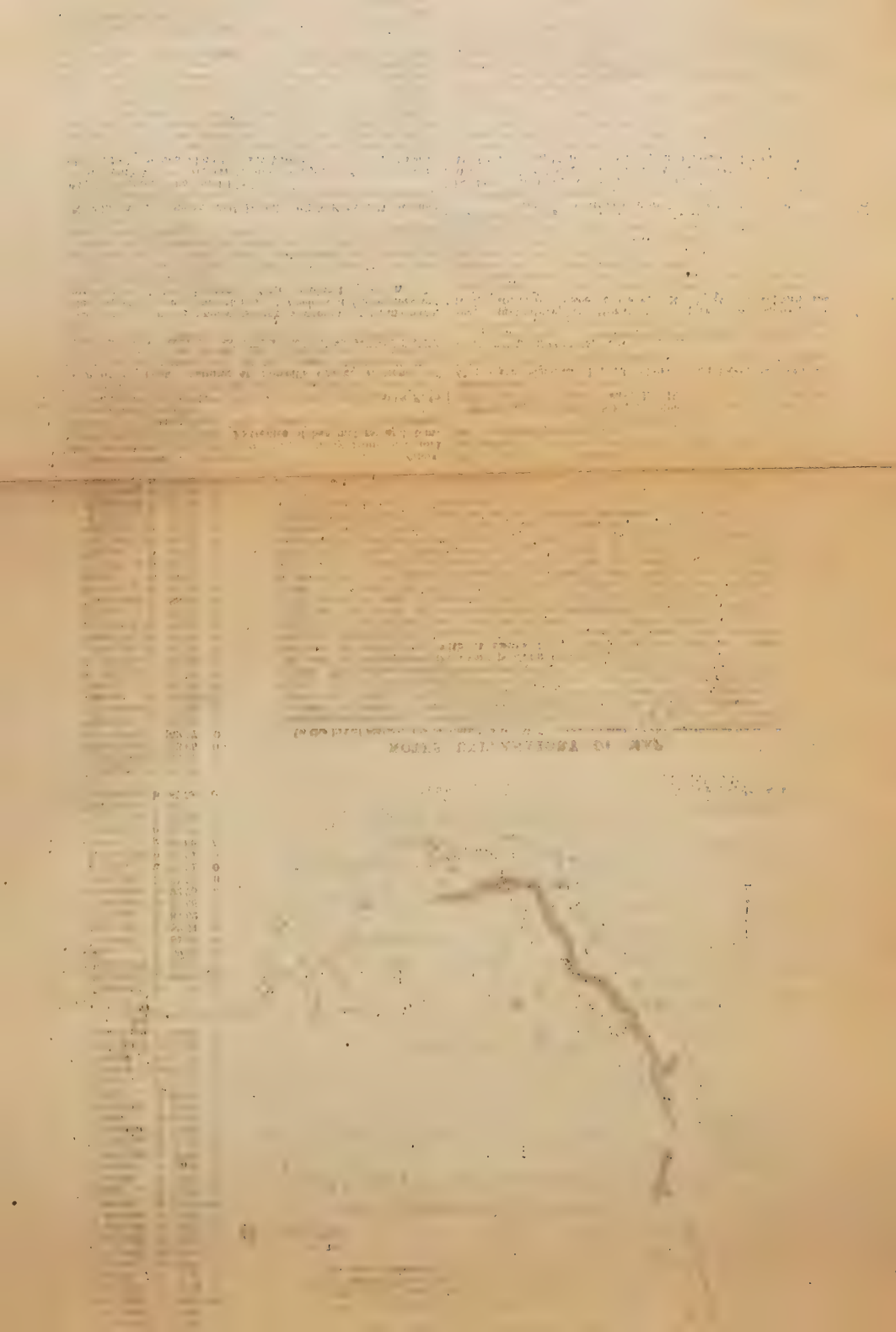
HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 11 feet. **Barwon:** At Mogil Mogil, 13 feet 6 inches; at Walgett, 29 feet 10 inches. **Namoi:** At Walgett, 7 feet 6 inches. **Culgoa:** At Goodooga, low. **Darling:** At Brewarrina, 17 feet 4 inches; at Bourke, 25 feet 7 inches; at Louth, 31 feet 6 inches; at Tilpa, 37 feet; at Willannia, 32 feet 1 inch; at Menindie, 27 feet 3 inches; at Pooncarie 24 feet 10 inches; at Wentworth, 16 feet 9 inches. **Murrumbidgee:** At Gundagai, 3 feet; at Wagga, 3 feet 9 inches; at Hay, 3 feet 3 inches; at Balranald, 11 feet 3 inches. **Murray:** At Albury, 3 feet; at Euston, 13 feet 7 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 3.

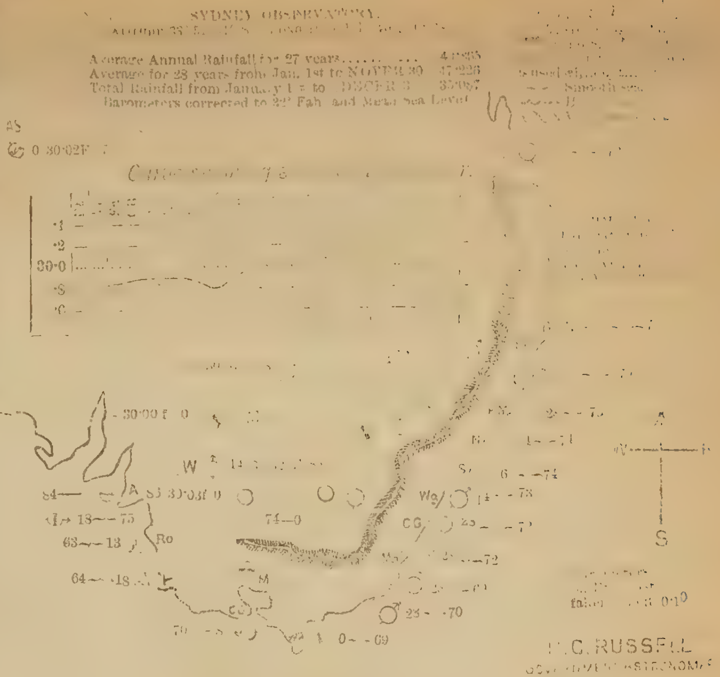
Sun rises at 4.44, sets at 6.56; Moon, 11.29 a.m., —; Mercury, 4.56 a.m., 7.2 p.m.; Venus, 4.46 a.m., 6.56 p.m.; Mars, 7.1 a.m., 9.23 p.m.; Jupiter, 9.23 a.m., 3.20 p.m.; Saturn, 9.15 p.m., 7.45 a.m. Full Moon, 11th; new Moon, 25th.

High water at Fort Denison, 12.42 a.m., 1.4 p.m.



METEOROLOGICAL REPORTS AND MAP FOR DECEMBER [illegible]

Stations	wt	Mx	Mn	R'in
Albury	b	97	64	0
Armidale	b	85	56	0
Balranald	b	110	56	0
Bathurst	b	89	55	0·14
Pend'n'h	[illegible]	[illegible]	[illegible]	0
Bodalla..	b	85	62	0
Bourke ..	b	98	73	0
Brewarrina	b	[illegible]	[illegible]	0
Bundarra	c	[illegible]	[illegible]	0
C'md'n H	b	[illegible]	[illegible]	0
C.St.Geo	b	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Casino ..	c	87	55	0
Cassilis ..	b	84	63	0
Clarence	b	86	67	0
C'nd'b'lin	b	95	51	0
Cooma ..	g	92	52	0
Coonab'n	c	91	56	0
Cowra ..	b	[illegible]	[illegible]	[illegible]
Deniliq'n	[illegible]	[illegible]	[illegible]	0
Dubbo ..	[illegible]	[illegible]	[illegible]	[illegible]
Eden	b	[illegible]	[illegible]	[illegible]
Euston ..	b	[illegible]	[illegible]	[illegible]
Forbes ..	b	[illegible]	[illegible]	[illegible]
Gl'n Inn's	[illegible]	[illegible]	[illegible]	[illegible]
Goulburn	[illegible]	[illegible]	[illegible]	[illegible]
Grafton ..	g	—	61	0
Gulgong	c	86	60	0
Gunned'h	b	94	67	0
Hay	b	102	66	0
Inverell..	b	87	60	0
Kiandra	b	85	45	0
Lismore	b	86	61	0
Maitland	b	91	62	0
Marsdens	g	92	68	0·25
Menindie	b	91	73	0·35
Molong ..	b	94	52	0·10
M'r'ng'r'll	b	88	61	0·24
Moree ..	b	89	63	0
Moruya..	b	78	64	0
Moss Vale	b	84	57	0
Mt. Hope	b	93	—	0
M.Vict'ria	b	62	59	0
Mudgee	h	92	54	0·28
M'rr'mb'h	b	87	60	0
M'rr'ndi	b	85	67	0
Mus'lbr'k	b	96	58	0
Narrabri	b	93	66	0·18
Newcastle	b	77	64	0
Orange ..	b	82	52	0·30
Picton ..	b	86	60	0
P. M'q'rie	b	80	61	0
P. St'ph'n	b	85	62	0
Q'nbeyan	b	90	61	0·30
Quirindi	b	89	63	0
Singleton	b	89	66	0
SYDNEY ..	h	78	62	0
Tamw'rth	g	90	58	0·06
Taralga ..	b	89	52	0
Taree	b	86	62	0
T'nt'rfield	—	—	—	—
Wagga ..	b	—	60	0·10
Walcha ..	c	83	49	0
Walgett..	b	96	73	0
Warrah ..	b	88	58	0
W'ntw'rth	b	102	67	0
W'll'ng'ng	b	91	62	0
Young ..	b	92	60	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. **M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather, a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; G, Gabo; M, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin; Wentworth, Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.**

Western Australia.—On the east coast fine, with light W. to S.W. winds, and smooth sea. In south parts cloudy and squally, with strong N.E. to S.E. winds, and rough sea. Extremes of barometers and temperature: Albany, 30·22 and 55°; Cossack, 29·75; and Ashburton, 85°. Rainfall: Albany, 0·12 and Esperance Bay, 0·03 inch.

South Australia.—Generally hot and sultry. From the coast to Alice Springs cloudy and gloomy, with light N. to S.E. winds and calms, fallen barometers, and smooth sea. Yesterday rain fell at 35 stations in the north; greatest at Hergott, 0·92; Farina, 0·54; Georgetown, 0·46. Extremes of barometers and temperature on the coast: M'Donnell Bay, 29·89 and 62°; Streaky Bay, 29·79; and Adelaide, 84°.

Victoria.—Generally fine, but more or less cloudy and hazy, light, N. to E. winds, fallen barometers, and moderate sea. Squally at Melbourne and Cape Schanck. Extremes of barometers and temperature: Lake's Entrance, 29·97; Wilson's Promontory, 29·80; Echuca 87°, and Portland 64°.

Tasmania.—Generally fine, but cloudy, with light N. to E. winds, fallen barometers, and smooth sea. Foggy at Low Heads. Extremes of barometers and temperature: Low Heads, 29·88 and 58°; Hobart, 29·75 and 66°.

New Zealand.—Generally fine, with westerly winds. Rough sea on the west coast. Barometers: Russell, 30·2; Wellington, and Bluff, 30·0.

New South Wales.—Generally fine and warm, with light N. to N.E. winds and calms, fallen barometers, and smooth sea: Cloudy at a few scattered places; light rain fallen west of the range, principally in south parts, and heaviest at Goulburn. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·18; Gabo Island, 29·90; Deniliquin, 86°; and Cooma, 69°. Reading of the standard barometer at Sydney corrected to 32° Fahr., and mean sea level at 9 a.m.: 30·030°. Extra stations:—Hill End: Rainfall: 0·50 inch; Temora, heavy thunderstorm from N.E., and 0·80 inch rain. Lake Cudgellico: Max. 88, min. 62., cool with few clouds. For further particulars see map.

Queensland.—Generally unsettled, with S.E. to S.W. winds, fallen barometers, and moderate sea. Showery at Townsville, squally and rough sea at Cooktown. Rainfall: Townsville, and Rockhampton, 0·15 inch. Extremes of barometers and temperature: Brisbane, 30·14; Townsville, 29·71 and 92°; Cape Moreton, 71°.

3 P.M. OBSERVATIONS.

Victoria.—**Portland, S., 28, fine but cloudy, smooth sea, temperature 64°; Cape Otway, S.S.W., 18, cloudy and misty, smooth sea, temperature 61°; Melbourne, S.S.W., 23, cloudy and squally, temperature 68°; Wilson's Promontory, S.W., 18, fine, but cloudy,** smooth sea, temperature 72°. [illegible] Port Macquarie, N.E., 42, fine, smooth sea, temperature 7[illegible]; Clarence River, N.E., 28, fine, smooth sea, temperature 78°; Walgett, N.E., cloudy, temperature [illegible]; Dubbo, W.N.W., 14, fine, temperature 79°; Goulburn, N.N.W., 14, fine, temperature 7[illegible].

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 14 feet. Barwon: At Mogil Mogil, 13 feet 6 inches; at Walgett, 23 feet 6 inches. Namoi: At Walgett, 6 feet. Culgoa: At Goodooga, low. Darling: At Brewarrina, 17 feet [illegible] inches; at Bourke, 25 feet 1 inch; at Louth, 30 feet 10 inches; at Tilpa, 36 feet 11 inches; at Wilcannia, 32 feet 3 inches; at Menindie, 27 feet 2 inches; at Pooncarie, 23 feet 10 inches; at Wentworth, 16 feet 9 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 3 feet 7 inches; at Hay, 3 feet; at Balranald, 11 feet 1 inch. Murray: At Albury, 2 feet 9 inches; at Euston, 13 feet 8 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 4.

Sun rises at 4.44, sets at 6.57; Moon, 12.22 p.m., 12.15 a.m.; Mercury, 4.16 a.m., 6.48 p.m.; Venus 4.47 a.m., [illegible]8 p.m.; Mars, 7.0 a.m., 9.23 p.m.; Jupiter, 2.29 a.m., 3.1[illegible] p.m.; Saturn, 9.4[illegible] p.m., 7.41 a.m. Full Moon, 11th; new Moon, 25th.

High water at Fort Denison 1.26 a.m., 1.53 p.m.

METEOROLOGICAL ABSTRACT, NOVEMBER, 1886, with results for the same month during the preceding 27 years.

—	Barometer at 32° Fah. and mn. sea lev'l.	Temperature in Shade. Mean Max.	Mean Min.	Mean.	Rainfall. Amount Inches.	No. of days
1886: November	30·025	75·3	62·2	68·8	4·372	14
Average for 28 years	29·971	73·9	59·0	66·5	3·132	12
Monthly Extremes: Highest Year	30·199 1869	79·9 1867	61·4 1872	69·4 1867	9·[illegible]0 1865	21 1873
Lowest Year	29·794 1876	69·0 1873	5[illegible]·9 1851	62·9 1873	0·20[illegible] 1867	2 1867

Wind.—Prevailing direction, E.N.E.; average prevailing direction for 28 years, S.; November, 1886, mean miles per hour, 10·[illegible].

Temperature.—Highest shade temperature, 90·1, on the 12th; highest shade temperature in any November since 1859, 102·7, on the 21st, 1878; lowest shade temperature, 53·9, on the 15th; lowest

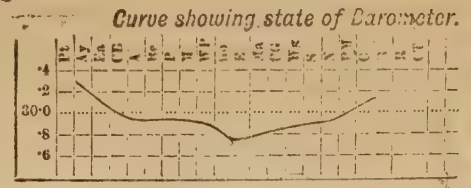
Stations	wt	Mx	mn	rain
Albury	r	96	68	0·95
Armidale	b	87	60	0
Balranald	r	112	53	1·97
Bathurst	g	84	62	0·01
Bend'm'r	b	82	62	0
Bodalla	g	84	63	0
Bourke	g	94	72	0
Br'w rrina	c	101	58	0·18
Bundarra	c	79	64	0
C'md'n H	b	80	68	0
C.St.Geo	b	78	65	0
Carcoar	g	88	69	0·04
Casino	–	—	—	–
Cassilis	b	83	70	0
Clarence	b	85	68	0
C'nd'b'lin	r	93	55	0·14
Cooma	c	93	64	0
Coonab'n	g	87	61	0
Cowra	b	96	65	0
Deniliq'n	r	102	61	0·83
Dubbo	b	90	67	0
Eden	b	77	65	0
Euston	r	105	64	0·94
Forbes	g	—	53	0
Gl'n Inn's	b	87	59	0
Goul bun	g	90	61	0
Ea. 34–62				
Grafton	h	—	67	0
Gulgong	c	87	66	0
Gunned'h	–	—	—	–
Hay	r	96	65	1·16
Inverell	b	84	65	0
Kiandra	r	84	55	0·18
Lismore	c	85	63	0
Maitland	b	95	67	0
Marsdens	r	92	68	0·10
Menindie	g	73	66	1·20
Molong	o	86	63	0·01
M'r'ng'r'll	r	90	71	0·19
Moree	g	87	67	0
Moruya	h	75	64	0
Moss Vale	b	85	65	0
Mt. Hope	r	91	—	0·22
M. Vict'ria	g	65	61	0
Mudgee	r	86	60	0
M'rr'mb'h	r	90	67	0·03
M'rr'r'ndi	g	83	71	0
Mus'br'k	b	102	57	0
Narrabri	g	93	75	0
Newcastle	b	83	67	0
Orange	c	82	52	0
Picton	g	88	64	0·03
P. M'q'rie	h	80	65	0
P. St'ph'n	h	85	62	0
Q'nbeyan	h	83	62	0
Quirindi	b	87	69	0
Singleton	b	91	72	0
Sydney	c	80	67	0
Tamw'rth	–	—	—	–
Taralga	g	86	60	0
Taree	b	89	65	0
T'nt'rfield	c	79	59	0
Wagga	r	—	61	0·15
Walcha	b	78	55	0
Walgett	g	97	76	0
Warrah	g	87	64	0
W'nkw'rth	r	98	62	0·37
W'll'ag'ng	h	81	65	0
Young	r	92	66	0·03

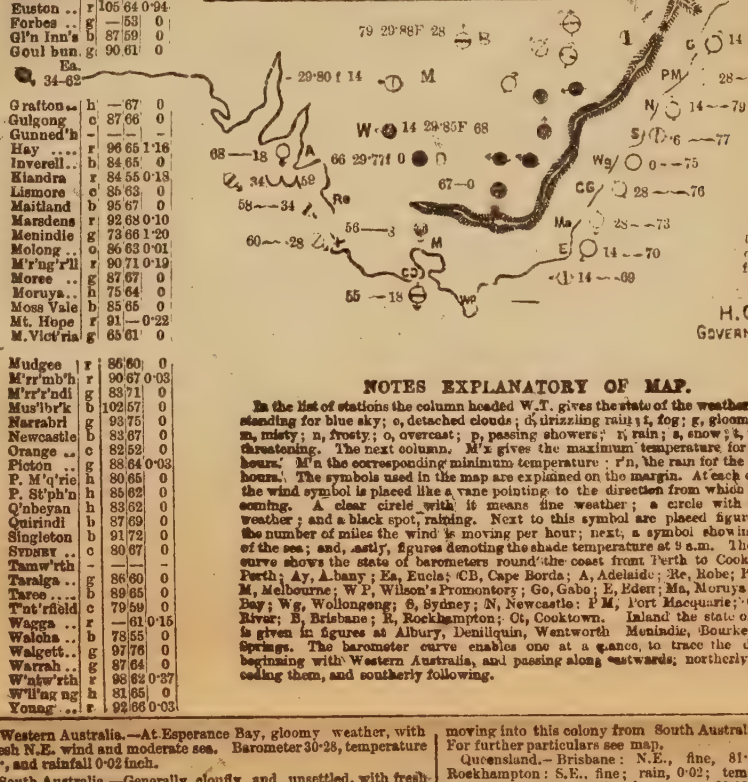
SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E

Average Annual Rainfall for 27 years..... 40·965
Average for 28 years from Jan. 1st to NOVBR 30 47·226
Total Rainfall from January 1st to DECBR 4 35·087
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.





NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; z, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:– Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G'Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ot, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance, to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—At Esperance Bay, gloomy weather, with fresh N.E. wind and moderate sea. Barometer 30·28, temperature 56°, and rainfall 0·02 inch.

South Australia.—Generally cloudy and unsettled, with fresh S. to S.E. winds, risen barometers, and moderate to rough sea. Fierce squalls during the night on the coast, and still squally. Rainfall: Port Augusta, 1·71, The Peak, 1·02, and Farina, 0·88; James Tawns, 2·73; Hergott, 2·08; Beltana, 1·39; Appila, 1·73; Terowie, 1·23; other stations, 0·08 to 0·88. Extremes of barometers and temperature on the coast: Eucla, 30·06; Streaky Bay, 29·88; M'Donnell Bay, 55°; and Adelaide, 68°. General rain has fallen; thunderstorms and rain from all stations between Burra and Peake.

Victoria.—Generally cloudy and gloomy, with light S. to S.E. winds, risen barometers, and smooth sea. Heavy showers at Melbourne, and light rain falling at Lakes Entrance and Hamilton. Rainfall: Melbourne, 0·72; Omeo, 0·60; Echuca, 0·50; Horsham, 0·44; Cape Schanck, 0·43; Ballaarat, 0·42; and Lakes' Entrance, 0·30. Extremes of barometers and temperature: Cape Otway, 29·97; Echuca, 29·68; Horsham, 72°; and Hamilton, 50°.

Tasmania.—Generally cloudy and unsettled, with light S. to S.E. winds, risen barometers, and moderate sea; light rain falling at Circular Heads. Extremes of barometers and temperature: Hobart, 29·96 and 48°; Circular Heads, 29·86 and 55°.

New Zealand.—Generally fine, with N.W. to S.W. winds. Barometers: Russell, 30·3; Wellington, 30·1; and Bluff, 29·8.

New South Wales.—Fine and hazy along the coast; cloudy and sultry inland; raining more or less heavily in S.W. and S. parts. The winds are generally light, from north to easterly, and calms in places, barometers have fallen, and the sea is smooth. Rain has fallen during the night in S.W. parts; heaviest at Balranald, where nearly two inches fell. Extremes of barometers and temperature at 9 a.m.: Clarence, 30·107; Eden, 29·76; Walgett, 82°; and Kiandra, 57°. Reading of the standard barometer at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m.: 29·858". Extra stations:—Wilcannia: Rainfall: 0·87 inch; Lake Cudgellico: Max. 70, min. 67., rainfall: 0·87 inch, and still raining. Rain moving into this colony from South Australia; showery on 5th. For further particulars see map.

Queensland.—Brisbane: N.E., fine, 81°; barometer, 30·04; Rockhampton: S.E., fine; rain, 0·02; temperature, 77°; barometer, 29·97; Townsville: barometer, 30·02; temperature, 88°; showery, moderate sea; Cooktown: Barometer, 29·92; calm, showery; rain, 0·014 inch; smooth.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 36, fine, smooth sea, temperature 60°: Cape Otway, S., 30, misty, smooth sea, temperature 57°

New South Wales.—Menindie, S., 28, cloudy, temperature 75°; Wentworth, S.W., 28, like rain, temperature 68°; Deniliquin, S., 10, cloudy, temperature 77°; Eden, S.E., 14, like rain, little sea, temperature 71°; Moruya, N.E., 14, gloomy, moderate sea, temperature 71.; Cape St. George, N., 28, cloudy, smooth sea, temperature 77°; Sydney, N.E., 20, like storm, moderate sea, temperature 78°; Newcastle, N.E., 15, fine, smooth sea, temperature 76°; Port Macquarie, N.N.E., 42, hazy, moderate sea, temperature 54°; Clarence River, N.E., 20, fine, smooth sea, temperature 77°; Walgett, N.W., 20, stormy-looking to S.W., temperature 89°; Dubbo, calm, raining, temperature 77°; Goulburn, N., 10, cloudy, temperature 76°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 15 feet. Barwon: At Mogil Mogil, 13 feet 6 inches; at Walgett, 27 feet. Namoi: At Walgett, 4 feet. Culgoa: At Goodooga, low. Darling: At Brewarrina, 15 feet 3 inches; at Bourke, 24 feet 7 inch; at Louth, 30 feet 7 inches; at Tilpa, 36 feet 10 inches; at Wilcannia, 23 feet 5 inches; at Menindie, 27 feet 3 inches; at Pooncarie, 23 feet 10 inches; at Wentworth, 16 feet 10 inches. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 3 feet 6 inches; at Hay, 2 feet 10 inches; at Balranald, 10 feet 9 inches. Murray: At Albury, 2 feet 9 inches; at Euston, 13 feet 8 inches.

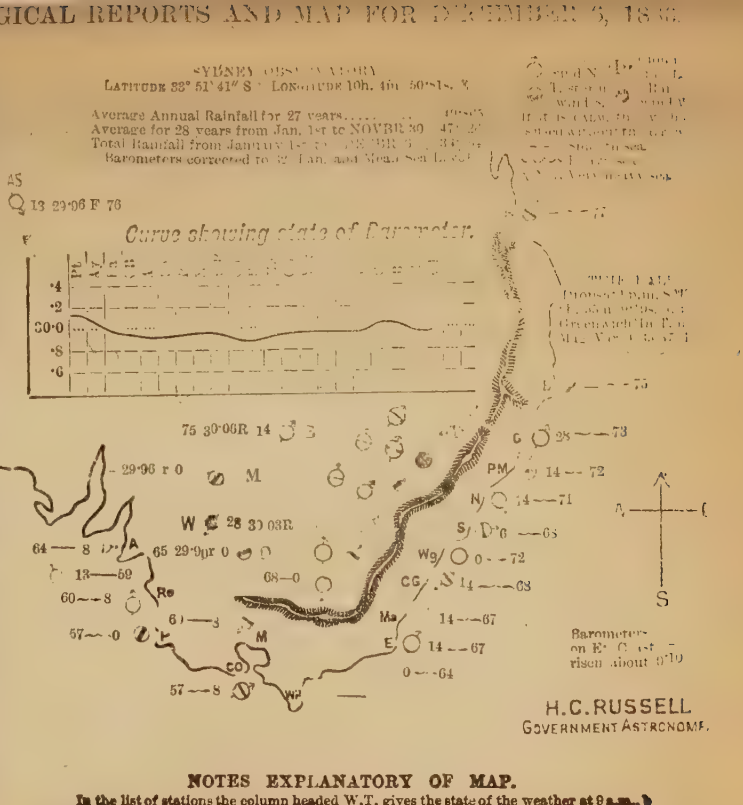
ASTRONOMICAL MEMORANDA FOR DECEMBER 6.

Sun rises at 4.44, sets at 6.59; Moon, 2.8 p.m., 1.20 a.m.; Mercury, 4.46 a.m., 6.20 p.m.; Venus, 4·49 a.m., 7.2 p.m.; Mars, 7.0 a.m., 9.21 p.m.; Jupiter, 2.14 a.m., 3.13 p.m.; Saturn, 9.33 p.m., 7.33 a.m. Full Moon, 11th; new Moon, 25th.

High water at Fort Denison, 3.19 a.m., 3.51 p.m.

METEOROLOGICAL REPORTS AND MAP FOR DECEMBER 8, 1886.

Stations	wt	Mx	Mn	R'in
Albury	b	82	62	1·25
Armidale	b	97	66	0·05
Balranald	g	87	57	0·30
Bathurst	c	76	60	2·45
Bend'm'r	g	77	64	0·12
Bodalla ..	g	82	59	1·10
Bourke ..	c	88	72	1·72
Br'w'rrina	c	104	57	0·49
Bundarra	u	79	66	0
C'md'n H	c	81	71	0·40
C.St.Geo	f	72	58	0·30
Carcoar ..	g	73	61	1·32
Casino ..	b	86	65	0
Cassilis ..	c	78	68	1·14
Clarence	b	84	69	0
C'nd'b'lin	c	91	51	·67
Cooma ..	f	82	52	0·67
Coonab'n	r	77	69	0·60
Cowra ..	g	89	66	1·95
Deniliq'n	c	83	60	0·59
Dubbo ..	c	81	66	4·82
Eden	b	67	65	0·13
Euston ..	r	85	56	0·03
Forbes ..	b	—	67	1·50
Gl'n Inn's	g	84	61	0·01
Goulburn	b	71	52	0·48
Grafton ..	b	85	69	0·02
Gulgong	b	76	60	3·00
Gunned'h	c	89	69	0·28
Hay	b	91	61	0·75
Inverell ..	c	85	69	0
Kiandra	c	83	47	2·17
Lismore	b	80	69	0·01
Maitland	u	99	69	0·17
Marsdens	b	81	67	2·49
Menindie	g	79	66	0
Molong ..	u	75	60	1·83
M'r'ng'r'll	g	80	64	2·03
Moree ..	c	81	71	0·55
Moruya ..	g	70	60	1·39
Moss Vale	c	72	61	0·83
Mt. Hope	b	85	—	0
M. Vict'ria	c	85	56	0·59
Mudgee	c	81	57	3·56
M'rr'mb'h	b	79	61	0·94
M'rr'ndi	c	81	67	0·80
Mus'lbr'k	g	89	64	0·17
Narrabri	g	88	69	0·25
Newcastle	b	73	64	0·06
Orange ..	c	72	57	2·51
Picton ..	c	74	63	0·88
P. M'q'rie	c	78	63	0·13
P. St'ph'n	g	87	64	0·37
Quanbeyan	c	74	61	1·80
Quirindi	u	87	65	0·66
Singleton	u	85	69	0
SYDNEY ..	c	72	64	1·18
Tamw'rth	g	85	67	0·62
Taralga ..	b	76	54	0·80
Taree	b	83	71	2·15
T'nt'rfield	c	84	76	0
Wagga ..	b	—	57	0·19
Walcha ..	g	80	60	0·61
Walgett..	c	85	69	2·85
Warrah ..	r	70	58	0·54
W'ntw'rth	r	80	54	0·16
W'll'ng'ng	b	72	62	0·35
Young ..	g	80	57	1·79



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light S.E. winds, risen barometers, and moderate sea. Cloudy in S.W. parts. Passing showers and rough sea at Esperance Bay. Extremes of barometers and temperature: Perth, 30·14; Cossack, 29·67; Ashburton, 89°; and Esperance Bay, 56°.

South Australia.—Generally cloudy and gloomy, with light S.E. to S.W. winds, risen barometers, and smooth sea. Scattered clouds in places. Rain has fallen between Gawler and Charlotte Waters; heaviest between Farrell's Flat and Carrieton. Terowie, and Port Pirie, 0·50 inch; Farina, 0·51; Port Augusta, 0·39; and Daly Waters, 0·12. Extremes of barometers: Eucla, 29·94 and 65°; Streaky Bay, 29·88; and M'Donnell Bay, 54°.

Victoria.—Generally cloudy and gloomy, with light variable winds and calms, risen barometers, and smooth sea. Raining at Horsham and Lakes Entrance. Rainfall: Omeo, 2·50; Melbourne, 0·16; and Cape Schanck, 0·07 inches. Extremes of barometers and temperature: Cape Otway, 30·98; Echuca, 29·89 and 65°; and Hamilton, 52°.

Tasmania.—Generally cloudy with light variable winds, risen barometers, and moderate to rough sea. Extremes of barometers and temperature: Falmouth, 29·95; Low Heads, 29·91 and 61°; Circular Head, 54°.

New Zealand.—Generally fine, with N.W. winds. Showery at Bluff. Barometers: Russell, 30·3; Wellington, 30·1; and Bluff, 29·8.

New South Wales.—Generally cloudy and unsettled, with light N. to E. and S.E. winds, rising barometers, and smooth sea. Raining at a few scattered places. During the last 48 hours rain has fallen throughout the colony; heaviest in the districts about Dubbo, Mudgee, Hill End, and Gulgong, at which places 4·82, 3·56, 3·08, and 3 inches were recorded respectively; eight other stations, principally along the western slope of the range, report above 2 inches, and 10 above 1 inch fallen. Extremes of barometers and temperature at 9 a.m.: Walgett, 30·06; Gabo Island, 29·86; Lismore, 77°; and Cooma, 56°. Reading of the standard barometer at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m.: 29·950". Extra stations:—Camden: Rainfall: 1·15; Nowra, 0·88; Coonamble, 0·35; Wilcannia, 0·13; and Lake Cudgellico, 1·57 inch. For further particulars see map.

Queensland.—General[ly] [fine] and [unsettled], with li[ght] variable winds and calms, risen barometers, and moderate sea. Rainfall: Townsville, 0·86, and still raining; Cooktown, 0·83, and a hot wind blowing; Brisbane, 0·09; Cape Moreton, 0·04; and Rockhampton, 0·03 inch. Extremes of barometers and temperature: Brisbane, 30·02; Townsville, 29·63; Cape Moreton, 74°; and Cooktown, 86°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.S.E., 23, fine, smooth sea, temperature 62°; Cape Otway, E.S.E., 18, cloudy, smooth sea, temperature 61°; Melbourne, E., 8, cloudy, temperature 59°; Cape Schanck, E., 13, light rain, smooth sea, temperature 60°; Lakes Entrance, W., 13, misty and cloudy, temperature 64°.

New South Wales.—Menindie, S.E., 42, fine, temperature 77°; Wentworth, S.E., 28, cloudy, temperature 57°; Deniliquin, E.S.E., 28, threatening, temperature 71°; Eden, N.E., 14, fine, smooth sea, temperature 73°; Moruya, E.N.E., 14, fine but dull, moderate sea, temperature 75°; Sydney, E., 16, fine and cloudy, smooth sea, temperature 73°; Newcastle, E., 14, fine, smooth sea, temperature 76°; Port Macquarie, N.N.E., 14, hazy, smooth sea, temperature 79°; Clarence River, N.E., 14, fine, rough sea, temperature 77°; Dubbo, N.W., 14, showery, temperature 76°; Goulburn, N.E., 14, dull, temperature 76°. On Saturday Bega reported 0·40 rain.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 10 feet. Barwon: At Mogil Mogil, 14 feet; at Walgett, 23 feet 6 inches. Namoi: At Walgett, low. Darling: At Brewarrina, 16 feet 5 inches; at Bourke, 23 feet; at Louth, 29 feet 6 inches; at Tilpa, 36 feet; at Wilcannia, 32 feet 6 inches; at Menindie, 27 feet 3 inches; at Pooncarie, 24 feet; at Wentworth, 16 feet 11 inches. Murrumbidgee: At Gundagai, 7 feet 6 inches; at Wagga, 3 feet 3 inches; at Hay, 4 feet 3 inches; at Balranald, 8 feet 7 inches; Murray: At Albury, 4 feet; at Euston, 13 feet 7 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 7.

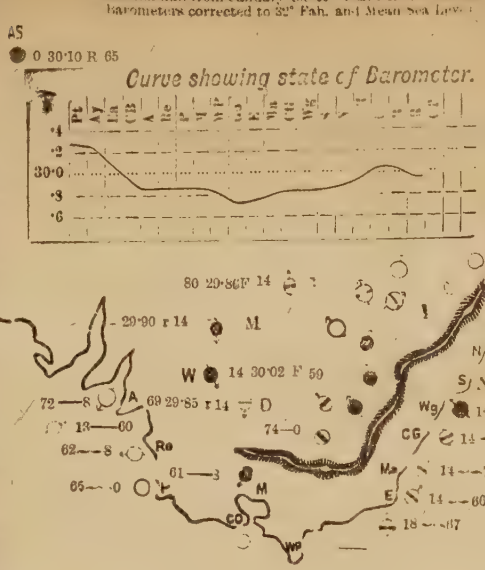
Sun rises at 4.44, sets at 7; Moon, 3·5 p.m., 1.53 a.m.; Mercury, 4.16 a.m., 6.6 p.m.; Venus, 4·50 a.m., 7.4 p.m.; Mars, 6.59 a.m., 9.21 p.m.; Jupiter, 2.12 a.m., 3.10 p.m.; Saturn, 9.28 p.m., 7.28 a.m. Full Moon, 11th; new Moon, 26th.

High [W]ater: Fort Denison, 4.23 a.m., 4.55 p.m.

Stations	wt	Mx	mn	R'in
Albury	u	88	63	0
Armidale	b	96	61	0·08
Balranald	r	gl	56	0·27
Bathurst	r	80	67	0·44
Bend'm'r	u	78	68	0
Bodalla ..	r	81	64	0·32
Bourke ..	g	92	74	0·56
Br'w rrina	c	96	60	0·62
Bundarra	c	82	69	0
C'md'n H	b	80	71	0
C.St.Geo	c	76	65	0
Carcoar ..	r	75	61	0·50
Casino ..	b	92	64	0
Cassilis ..	u	82	71	0·24
Clarence	b	84	69	0
C'nd'b'lin	r	90	54	1·67
Cooma ..	c	86	55	0
Coonab'n	g	79	64	0·32
Cowra ..	r	88	70	0·94
Deniliq'n	g	78	53	0
Dubbo ..	b	86	69	0·06
Eden	u	72	61	1·08
Euston ..	r	62	53	0
Forbes ..	r	73	64	1·40
Gl'n Inn's	b	85	61	0
Goulburn	g	80	61	0·76
Grafton ..	b	—70		0
Gulgong	r	81	63	0·16
Gunned'h	c	88	72	0·16
Hay	c	86	59	0
Inverell ..	c	87	71	0
Kiandra	c	77	51	0
Lismore	b	83	69	0
Maitland	r	92	72	0·04
Marsdens	c	87	71	1·63
Menindie	r	79	62	0
Molong ..	o	83	65	0·39
M'r'ng'r'll	u	87	67	0·60
Moree ..	b	83	79	0
Moruya ..	r	76	64	0·38
Moss Vale	r	79	66	0·33
Mt. Hope	g	89	46	0·45
M. Vict'ria	c	86	56	0·29
Mudgee	r	84	63	1·15
M'r'mb'h	c	81	66	0·14
M'r'r'ndi	c	81	70	0·10
Mus'lbr'k	r	100	68	0·25
Narrabri	g	87	73	0·07
Newcastle	b	82	69	0
Orange ..	r	79	64	0·18
Picton ..	r	88	67	0·07
P. M'q'rie	h	76	63	0
P. St'ph'n	g	87	66	0
Q'nbeyan	r	77	66	1·03
Quirindi	c	88	70	0·26
Singleton	g	91	73	0·37
SYDNEY ..	f	75	68	0·02
Tamw'rth	g	88	70	0
Taralga ..	g	79	50	0·81
Taree	c	90	72	0·01
T'nt'rfield	h	85	76	0
Wagga ..	c	—68		0·04
Walcha ..	g	79	65	0·01
Walgett ..	g	89	72	0·45
Warrah ..	g	84	68	0·08
W'tnw'rth	r	64	52	0·57
W'll'ng ng	c	79	69	0·06
Young ..	g	83	61	2·47

SYDNEY OBSERVATORY
LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·665
Average for 28 years from Jan. 1st to NOVBR 30 47·221
Total Rainfall from January 1st to DECBR 7 36·286
barometers corrected to 32° Fah. and Mean Sea Level



Barometer on ... sea ... risen about 0·02

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: P, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Along the west coast fine, in south parts cloudy and gloomy, with light S. to E. winds, risen barometers, and moderate sea. Rough sea off Cossack. Extremes of barometers and temperature: Perth, 30·27; Cossack, 29·76; Ashburton, 81°; and Esperance Bay, 58°.

South Australia.—Generally cloudy and gloomy, from Port Lincoln to Alice Springs; scattered clouds in Northern Territory, with light S.W. to S.E. winds, and calm; almost steady barometers, and smooth sea. Rain has fallen between Gawler and Barrow Creek; heaviest at Alice Springs, Beltana, Morse, Morgan, Charlotte, and Gladstone, where from 0·90 to 0·50 inch fell. Extremes of barometers and temperature: Eucla, 30·03; M'Donnell Bay, 29·85; Adelaide, 72°.; and Cape Borda, 60°.

Victoria.—Generally cloudy and unsettled, with light S. to E. winds, and calm, fallen barometers, and smooth sea. Raining in showers at Melbourne and Ballarat. Rainfall: Horsham 0·28; Ballarat, 0·22; Cape Otway, 0·07; and Hamilton, 0·02 inch. Extremes of barometers and temperature: Cape Otway, 29·91; Ballarat, 29·77; Omeo, 72°; and Ballarat, 55°.

Tasmania.—Generally cloudy and unsettled, with light S. to S.E. winds, fallen barometers, and moderate sea. Extremes of barometers and temperature: Hobart, 29·87 and 59°; Falmouth, 29·83 and 56°; 0·52 inch of rain, and still raining.

New Zealand.—Fine on North Island, with S. to W. winds; cloudy at Bluff, with E. wind. Barometers: Russell, 30·2; Wellington and Bluff, 30·0.

New South Wales.—In south parts raining more or less heavily at 20 scattered stations, principally along the range; in N.E. parts fine and clear; in the remainder of the colony cloudy, gloomy, and unsettled. The winds generally are light from N.W., N.E.; barometers are almost steady, and the sea is smooth to moderate. Rain has fallen generally, heaviest in the districts between the Lachlan and Murrumbidgee Rivers, where the rain continues to fall. The following were measured at 9 a.m.: 3·30, 2·47, 1·67, 1·63, and 1·40 inches at Temora, Young, Condobolin, Marsden, and Forbes respectively. Reading of the standard barometer at Sydney, corrected to 32° Fahr., and mean sea level at 9 a.m.: 29·865. Extra stations:—Wilcannia: Rainfall—1·00 inch; Lake Cudgellico, 0·80 inch; Hill End, 0·25 inch; Gabo Island, 0·07 inch; Burrowa, Saturday 1.28, Sunday 0·10, and today 2·51 inches, and still raining. For further particulars see map.

Queensland.—Generally cloudy and unsettled, with light S.E. to E. winds and calms, fallen barometers, and moderate sea. Heavy rain falling at Cooktown. Rainfall: Cooktown, 3·20, and Townsville, 0·21 inch. Extremes of barometers and temperature: Brisbane, 30·00; Townsville, 29·65; Cooktown, 88°; and Cape Moreton, 76°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S., 23, fine, smooth sea, temperature 68°; Cape Otway, S.E., 13, fine, smooth sea, temperature 69°; Melbourne, S.S.W., 8, cloudy and gloomy, temperature 62°; Cape Schanck, E., 13, cloudy and misty, smooth sea, temperature 61°; Lakes' Entrance, W., 8, misty rain, temperature 65°.

New South Wales.—Menindie, calm, cloudy and dull, temperature 51°; Wentworth, S.E., 28, threatening, temperature 58°; Deniliquin, calm, raining, temperature 68°; Eden, N.E., 14, fine, smooth sea, temperature 76°; Moruya, N.N.E., 28, raining, moderate sea, temperature 70°; Cape St. George, N., 14, cloudy, smooth sea, temperature 71°; Sydney, N.E., 12, overcast and gloomy, smooth sea, temperature 77°; Newcastle, N.E., 14, showery, smooth sea, temperature 76°; Port Macquarie, N.N.E., 42, hazy, moderate sea, temperature 75°; Walgett, N.E., cloudy and dull, temperature 81°; Dubbo, N., 14, showery, temperature 78°; Goulburn, N., 14, showery, temperature 74°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 16 feet. Barwon: At Mogil Mogil, 15 feet; at Walgett, 21 feet. Namoi: At Walgett, Low. Culgoa: At Goodooga, low. Darling: At Brewarrina, 1 foot; at Bourke, 23 feet; at Louth, 28 feet 11 inches; at Tilpa, 36 feet 4 inches; at Wilcannia, 32 feet 9 inches; at Menindie, 27 feet 4 inches; at Pooncarie, 24 feet; at Wentworth, 17 feet. Murrumbidgee: At Gundagai, 7 feet; at Wagga, 10 feet 8 inches; at Hay, 4 feet 6 inches; at Balranald, 8 feet 3 inches. Murray: At Albury, 7 feet; at Euston, 13 feet 6 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 8.

Sun rises at 4.44, sets at 7.1; Moon, 4 p.m., 2.25 a.m.; Mercury, 4.11 a.m., 6 p.m.; Venus, 4·51 a.m., 7.5 p.m.; Mars, 6.59 a.m., 9.20 p.m.; Jupiter, 2.9 a.m., 3.7 p.m.; Saturn, 9.21 p.m., 7.24 a.m. Full Moon, 11th; new Moon, 25th.

High water at Fort Denison, 5.26 a.m., 5.55 p.m.

Stations wt	Mx.	Mn	Rain
Albury r	80	61	0·50
Armidale u	90	69	0
Balranald c	65	55	0·29
Bathurst r	76	65	0·85
Bend'm'r u	84	7±	0
Bodalla .. g	85	64	0·45
Bourke .. c	89	70	0·22
Br'w rrina c	91	56	0·77
Bundarra c	83	70	0·04
C'md'n H b	82	72	0
C. St. Geo b	74	63	0
Carcoar .. r	73	66	0·65
Casino .. b	93	63	0
Cassilis .. c	83	73	0·09
Clarence b	84	69	0
C'nd'b'lin g	87	54	0·85
Cooma .. c	86	62	0·10
Coonab'n r	84	63	0·18
Cowra .. r	88	67	5·36
Deniliq'n c	72	56	0·35
Dubbo .. r	83	66	1·24
Eden .... u	76	62	0·92
Euston .. c	65	54	0
Forbes .. u	—	67	1·45
Gl'n Inn's b	93	66	0
Goulburn g	76	64	1·15
Grafton .. b	—	71	0
Gulgong r	81	65	0·63
Gunned'h c	91	73	0
Hay c	87	60	0·26
Inverell .. g	89	72	0
Kiandra r	72	53	0·51
Lismore b	87	70	0
Maitland c	95	75	0·02
Marsdens u	81	69	0·52
Menindie b	67	62	0
Molong .. c	76	65	0·84
M'r'ng'r'll u	78	68	0·98
Moree .. u	90	70	0·10
Moruya .. g	75	63	1·05
Moss Vale u	74	67	1·22
Mt. Hope u	82	—	0·40
M. Vict'ria r	77	62	1·32
Mudgee r	81	62	1·50
M'gr'mb'h c	74	66	0·87
M'rr'ndi c	82	72	0
Mus'br'k g	99	70	0
Narrabri c	90	71	0·07
Newcastle b	83	68	0·16
Orange .. r	74	63	2·28
Picton .. g	80	68	1·23
P. M'q'rie h	77	63	0
P. St'ph'n c	90	61	0
Q'nb'yan c	76	67	1·50
Quirindi u	86	74	0
Singleton g	93	76	0
Stoney .. g	82	71	0·27
Sum'w'th g	90	73	0·02
Taralga .. u	73	47	2·30
Taree .... b	93	73	0
Tut'rfield g	92	76	0
Wagga .. r	—	63	0·51
Walcha .. g	82	59	0
Walgett .. g	88	71	0·45
Warrah .. c	89	71	0·10
W'nt'w'rth b	64	56	0·33
W'll'ng ng c	75	63	1·90
Young .. g	77	33	1·36

SYDNEY OBSERVATORY.

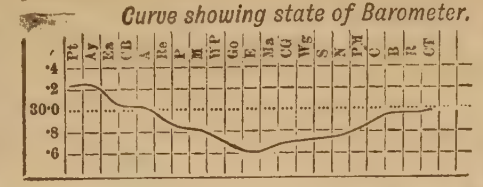
LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m 50·81s. E.

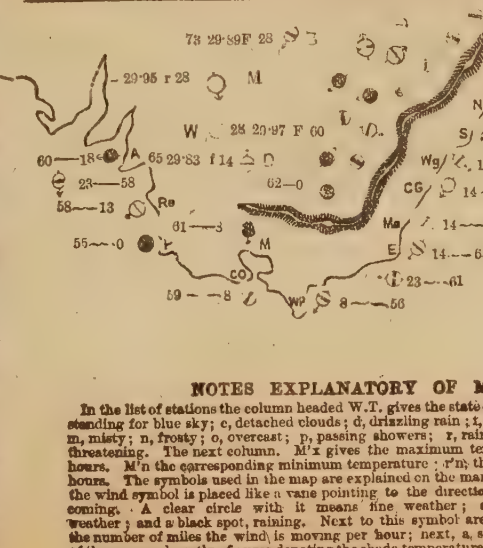
Average Annual Rainfall for 27 years..... 49·865

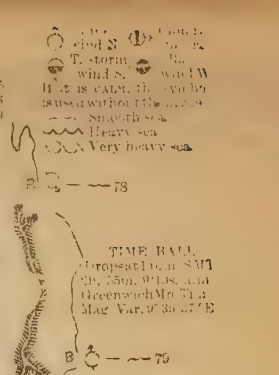
Average for 28 years from Jan. 1st to NOV. 30 47·228

Total Rainfall from January 1st to DEC. 3 50·040

Barometers corrected to 32° Fah. and Mean Sea Level







H. C. RUSSELL,
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a, symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Fine along the west coast, with easterly winds; cloudy in south, with southerly winds; rough sea off Cossack, smooth elsewhere. Rainfall: 0·07 inch at Esperance Bay. Extremes of barometers and temperature: Esperance Bay, 29·23 and 61°; Cossack, 29·81; and Carnarvon, 85°.

South Australia.—Generally cloudy and unsettled, with fresh south-westerly winds, risen barometers, and moderate sea. Light rain falling in S.E. parts. Rain has fallen during the last 24 hours; but partial; heaviest at Callington, 0·40; Queenscliffe, 0·45; Clarendon, 0·32, and Gladstone, 0·24 inch. Extremes of barometers and temperature on the coast: Eucla, 30·16 and 6·40; M'Donnell Bay, 29·90 and 56°. In Northern Territory: Daly Waters, 29·87 and 87°; Port Darwin, 29·77 and 91°.

Victoria.—Generally overcast and threatening, with light S. to W. winds, almost steady barometers, and smooth sea. Raining at Melbourne, Portland, Hamilton, and Omeo. Rainfall: Echuca, 0·20; Omeo, 0·18; Cape Otway, 0·23; Ballarat, 0·12; and Portland, 0·18 inch. Extremes of barometers and temperature: Horsham, 29·89 and 64°; Omeo, 29·76; and Hamilton, 54°.

Tasmania.—Generally cloudy and unsettled, with light variable winds, fallen barometers, and smooth sea. Rainfall: Falmouth, 0·37 inch. Extremes of barometers and temperature: Low Heads, 29·76; Falmouth, 29·73 and 57°; Circular Heads, 62°.

New Zealand.—Fine on North Island, with N. to N.W. winds; strong N.W. wind at Wellington, and heavy showers from N.W. at Bluff. Barometers: Russell, 30·1; Wellington, 29·8; and Bluff, 29·7.

New South Wales.—Generally cloudy, gloomy, and unsettled, with light N.W. to N.E. and E. winds, fallen barometers, and smooth sea. Raining at scattered places west of the range, principally in the districts around Dubbo, Mudgee, and Orange. Rain has fallen in the southern parts of the colony generally, heaviest on and near the range to the W. and S.W. of Sydney, and very heavy on the Lachlan River, which is flooded at Cowra, the water breaking over the banks, while the rain continues to fall. During the last 24 hours Cowra had 5·36 inches, Taralga 2·30, Orange 2·28, Hill End 2·05, Wollongong 1·90, and 12 other stations in the same districts above 1·00 inch. Extra stations:—Lake Cudgellico, max. 68, min. 67, rainfall 1·00, and cloudy; Coonamble, rainfall 1·00 inch; Wilcannia, 0·14; Gabo Island, 0·34; Bega, 0·67; and Camden 0·73 inch, and showery, sultry weather. For further particulars see map.

Queensland.—Generally fine, with S.E. winds in north, and N. winds in south parts, almost steady barometers, and moderate sea. Showery at Cooktown. Extremes of barometers and temperature: Cooktown, 29·97 and 84°; Rockhampton, 29·90, and Cape Moreton 76°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W.S.W., 28, fine, but cloudy, smooth sea, temperature 61°; Cape Otway, W., 18, light rain, smooth sea, temperature 54°; Melbourne, W., 13, thunderstorm and showers, temperature 57°; Cape Schanck, S.W., 8, cloudy and threatening, smooth sea, temperature 62°; Wilson's Promontory, W.S.W., 23, cloudy and squally, smooth sea, temperature 60°; Lakes' Entrance, S.W., 13, light misty rain, temperature 64°.

New South Wales.—Menindie, W., 28, cool, temperature 70°; Wentworth, S.W., 28, fine and cool, temperature 64°; Deniliquin, S., cloudy, temperature 71°; Eden, S.W., 14, showery, smooth sea, temperature 65°; Moruya, S., 42, showery, moderate sea, temperature 63°; Cape St. George, S., 28, showery, smooth sea, temperature 51°; Sydney, N.E., 6, overcast and gloomy, smooth sea, temperature 73°; Newcastle, N.W., 14, cloudy, smooth sea, temperature 87°; Clarence River, N.E., 26, fine, temperature 78°; Dubbo, W., showery, temperature 75°; Euston, S.W., 28, fine; Goulburn, W., 14, showery, temperature 72°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 16 feet. Barwon: At Mogil Mogil, 15 feet 6 inches; at Walgett, 19 feet 6 inches. Namoi: At Walgett, low. Culgoa: At Goodooga, low. Darling: At Brewarrina, 15 feet; at Bourke, 22 feet 6 inches; at Louth, 28 feet; at Tilpa, 36 feet 1 inch; at Wilcannia, 32 feet 9 inches; at Menindie, 27 feet 4 inches; at Fooncarie, 24 feet 1 inch; at Wentworth, 17 feet. Murrumbidgee: At Gundagai, 17 feet; at Wagga, 10 feet 9 inches; at Hay, 4 feet 3 inches; at Balranald, 8 feet. Murray: At Albury, 7 feet 11 inches; at Euston, 13 feet 5 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 9.

Sun rises at 4.44, sets at 7.2; Moon, 4.59 p.m., 3 a.m.; Mercury, 4.6 a.m., 8.54 p.m.; Venus, 4.51 a.m., 7.7 p.m.; Mars, 6.59 a.m., 9.19 p.m.; Jupiter, 2.6 a.m., 3.4 p.m.; Saturn, 9.20 p.m., 7.20 a.m. Full Moon, 11th; new Moon, 25th.

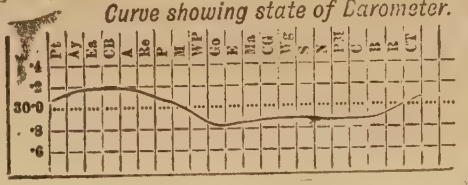
High water at Fort Denison, 6.23 a.m., 6.48 p.m.

Stations	wt	Mx	m	r'in
Albury	c	74	53	0·10
Armidale	b	81	66	0·35
Balranald	b	78	55	0
Bathurst	c	67	53	0·18
Bend'm'r	g	78	63	0·75
Bodalla ..	b	71	57	0·33
Bourke ..	b	81	61	0
Br'w rrina	b	83	49	0
Bundarra	c	79	68	0·60
C'md'n H	u	84	71	0·40
C. St. Geo	b	71	60	0
Carcoar ..	r	69	56	0·30
Casino ..	u	97	74	0·04
Cassilis ..	c	81	64	0·15
Clarence	g	84	64	0
C'nd'b'lin	b	80	45	0
Cooma ..	c	73	49	0
Coonab'n	b	81	53	0·20
Cowra ..	g	81	62	0·12
Deniliq'n	b	79	44	0
Dubbo ..	b	77	63	0·20
Eden	b	74	59	0·12
Euston ..	b	78	43	0
Forbes ..	b	—	57	0
Gl'n Inn's	c	77	63	0·13
Goulburn	g	75	51	0·04
Grafton ..	r	—	74	0·03
Gulgong	b	75	55	0·8
Gunned'h	b	85	68	0·97
Hay	b	78	49	0
Inverell ..	c	85	70	0·52
Kiandra	r	59	39	0·33
Lismore	c	95	76	0
Maitland	g	96	67	0·72
Marsdens	b	75	60	0
Menindie	b	72	56	0
Molong ..	c	73	55	0
M'r'ng'r'll	b	73	60	0·02
Moree ..	b	87	67	0·45
Moruya ..	b	71	58	0·20
Moss Vale	u	72	55	0·02
Mt. Hope	b	60	—	0
M. Vict'ria	b	71	49	0·20
Mudgee	c	76	51	0·14
M'rr'mb'h	c	70	59	0
M'rr'ndi	b	76	65	0·85
Mus'br'k	b	96	65	0·33
Narrabri	h	89	79	0·97
Newcastle	b	90	67	1·15
Orange ..	b	69	51	0·23
Picton ..	c	79	61	0·07
P. M'q'rie	c	77	67	0·15
P. St'ph'n	c	91	63	0·92
Q'nbeyan	r	74	60	0
Quirindi	b	86	67	1·19
Singleton	b	92	71	0·35
Sydney ..	c	82	65	0·62
Tamw'rth	g	83	66	0·96
Taralga ..	r	72	50	0·12
Taree	b	91	71	0·85
T'nt'rfield	r	92	71	0·50
Wagga ..	c	—	53	0·08
Walcha ..	o	76	61	0·36
Walgett ..	b	85	63	0·33
Warrah ..	b	72	64	0·78
W'ntw'rth	b	72	50	0
W'll'ng ng	c	76	63	0·02
Young ..	u	74	54	0·05

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·1s. E.

Average Annual Rainfall for 27 years..... 40·235
Average for 28 years from Jan. 1st to NOV. 30 47·926
Total Rainfall from January 1st to DEC. 9 37·168
Barometers corrected to 32° Fah. and Mean Sea Level.



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; i, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

H.C. RUSSELL
GOVERNMENT ASTRONOMER

Western Australia.—Along the west coast fine, with S.E. to E. winds, fallen barometers, and smooth sea. Extremes of barometers and temperature: Perth, 30·11; Cossack, 29·82; Ashburton, 82°; and Geraldton, 73°.

South Australia.—Generally fine, with scattered clouds, light S.W. to S. winds and calm, risen barometers, and smooth sea. Light rain has fallen south of Port Augusta; heaviest at Gawler, 0·35; Virginia, 0·33; Adelaide, 0·28; Port Pirie, 0·22; Waterhole, 0·20; and Penola, 0·25 inch. Extremes of barometers and temperature on the coast: Port Augusta, 30·19; M'Donnell Bay, 30·10; Eucla, 67°; and Cape Borda, 57°. In Northern Territory: Daly Waters, 29·97 and 79°; Port Darwin, 29·80 and 87°.

Victoria.—Generally overcast, threatening, and raining, with fresh southerly winds, risen barometers, and smooth sea. Rainfall: Melbourne, 1·86; Omeo, 0·95; Cape Schanck, 0·92; Ballarat, 0·88; Lakes Entrance, 0·29; Echuca, 0·26; and Cape Otway, 0·22 inch. Extremes of barometers and temperature: Horsham, 30·06; Omeo, 29·81 and 66°; Ballarat, 53°.

Tasmania.—Generally cloudy and unsettled, with light S.E. winds, risen barometers, and smooth sea. Rainfall: 0·02 inch at Low Heads. Extremes of barometers and temperature: Low Heads, 29·94 and 62°; Southport, 29·76; and Circular Heads, 60°.

New Zealand.—Generally fine, with N.W. to S.W. winds; strong N.W. wind at Wellington, rough sea along the west coast. Barometers: Russell, 30·00; Wellington and Bluff, 29·6.

Queensland.—Fine, with N.W. winds, in south, and S.E. winds and calm in north parts, with heavy showers at Cooktown. Sea moderate. Extremes of barometers and temperature: Cooktown, 30·00; Cape Moreton, 29·85 and 74°; Townsville, 88°.

New South Wales.—In the eastern division of the colony generally cloudy and unsettled, with rain, along the range south of Sydney and on the Clarence River; in west parts, fine, clear, and cool. The winds are light from S.W. to S.E.; barometers have risen, and the sea is smooth. Light rain has fallen in the eastern division generally; heaviest in N.E. parts; six stations along the Namoi and Hunter rivers report an inch, slightly more or less, and eight other stations further north had above half an inch. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·25; Cabo Island, 29·81; Lismore, 79°; and Kiandra, 45°. Reading of the standard barometer at Sydney corrected to 32° Fahr. and mean sea level at 9 a.m., 29·877. Extra stations: Lake Cudgellico, max. 75°, min. 55°, and fine. Rainfall: At Hill End, 0·58; at Gabo, 0·30; at Bega, 0·94, and still raining. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.S.E., 23, fine, but cloudy, temperature 62°; Cape Otway, S.W., 28, cloudy, smooth sea, temperature 58°; Melbourne, S.S.W., 13, cloudy, and light rain, temperature 56°; Cape Schanck, S., 23, cloudy and showery, moderate sea, temperature 59°; Lakes Entrance, W., 23, heavy showers, temperature 58°.

New South Wales.—Menindie, S., 28, fine and clear, temperature 70°; Wentworth, S.W., 28, fine, temperature 64°; Deniliquin, S.W., 14, fine, temperature 65°; Eden, S.W., 28, raining, smooth sea, temperature 59°; Moruya, S., 28, cloudy, smooth sea, temperature 64°; Cape St. George, S., 14, fine, smooth sea, temperature 69°; Sydney, S.E., 6, fine, but cloudy, smooth sea, temperature 66°; Newcastle, E., 14, fine, smooth sea, temperature 62°; Port Macquarie, S., 14, cloudy, moderate sea, temperature 79°; Clarence River, calm, dull, smooth sea, temperature 73°; Walgett, S.W., fine, temperature 75°; Dubbo, S.W., 14, fine, temperature 72°; Goulburn, W., 14, fine, temperature 68°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 16 feet. Barwon: At Mogil Mogil, 16 feet; at Walgett, 19 feet. Namoi: At Walgett, low. Culgoa: At Goodooga, low. Darling: At Brewarrina, 15 feet 3 inches; at Bourke, 22 feet 4 inches; at Louth, 27 feet 6 inches; at Tilpa, 32 feet 9 inch; at Wilcannia, 32 feet 1 inch; at Menindie, 27 feet 4 inches; at Pooncarie, 24 feet 2 inches; at Wentworth, 17 feet 3 inches. Murrumbidgee: At Gundagai, 20 feet; at Wagga, 16 feet 6 inches; at Hay, 4 feet; at Balranald, 7 feet 10 inches. Murray: At Albury, 6 feet; at Euston, 13 feet 3 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 16.

Sun rises at 4.44, sets at 7.3; Moon, 6.58 p.m., 4.24 a.m.; Mercury, 4.1 a.m., 5.48 p.m.; Venus, 4.52 a.m., 7.8 p.m.; Mars, 6.59 a.m., 9.18 p.m.; Jupiter, 2.3 a.m., 3.1 p.m.; Saturn, 9.15 p.m., 7.15 a.m. Full Moon, 11th; new Moon, 25th.

High water at Fort Denison, 7.58 a.m., 8.20 p.m.

Stations	wt	Max	Min	Rain
Albury	b	62	50	0·10
Condobolin	b	92	50	0
Balranald	b	82	51	0
Bathurst	b	67	46	0
Bend'm'r	b	82	47	0
Bodalla	b	75	51	0·36
Bourke	b	80	56	0
Br'w'rrina	b	83	41	0
Bundarra	b	79	53	0
C'md'n H	b	78	62	0
C. St. Geo	b	78	53	0
Carcoar	b	67	56	0·05
Casino	b	84	63	0·26
Cassilis	b	76	55	0
Clarence	b	73	55	0·10
C'nd'b'lin	b	88	51	0
Cooma	c	67	45	0·36
Coonab'n	b	79	46	0
Cowra	b	88	55	0
Deniliq'n	b	71	45	0·12
Dubbo	b	77	47	0
Eden	b	73	53	0·74
Euston	b	78	51	0
Forbes	b	—	54	0
Gl'n Inn's	b	78	48	0
Goulbu	b	68	43	0
Grafton	b	—	64	0·03
Gulgong	b	79	49	0
Gunned'h	b	83	57	0
Hay	b	78	48	0
Inverell	b	86	52	0
Kiandra	b	63	37	0·36
Lismore	b	83	74	0·25
Maitland	b	89	59	0
Marsdens	b	70	58	0
Menindie	b	72	60	0
Molong	b	74	48	0
M'r'ng'r'll	b	71	52	0
Moree	b	89	51	0
Moruya	b	74	53	0·04
Moss Vale	b	70	49	0
Mt. Hope	b	77	—	0
M.Vict'ria	b	69	42	0
Mudgee	b	71	45	0
M'rr'mb'h	b	70	51	0
M'rr'r'ndi	b	77	56	0
Mus'br'k	b	89	48	0
Narrabri	b	85	63	0
Newcastle	b	77	57	0
Orange	b	66	45	0
Picton	b	74	54	0·50
P. M'q'rie	b	79	58	0
P. St'ph'n	b	78	52	0
Q'nbeyan	b	68	53	0
Quirindi	b	79	55	0
Singleton	b	82	63	0
Sydney	b	74	53	0·11
Tamw'rth	b	80	47	0
Taralga	b	74	47	0·07
Taree	b	84	61	0·01
T'nt'rfield	b	92	49	0·10
Wagga	b	—	51	0·05
Walcha	b	76	43	0
Walgett	b	80	55	0
Warrah	b	80	50	0
W'ntw'rth	b	74	55	0
W'll'ng'ng	b	75	59	0·00
Young	b	76	46	0·03

SYDNEY OBSERVATORY

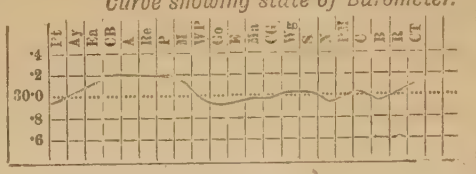
LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·9s. E.

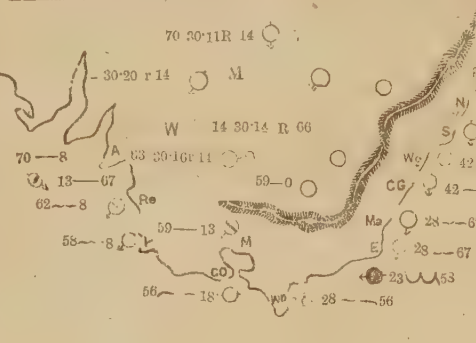
Average Annual Rainfall for 27 years ... 47·55

Average for 28 years from Jan. 1st to NOV. 30 ... 37·25

Total Rainfall from January 1st to DEC. 10 ... 21·75

Barometers corrected to 32° Fah. and Mean Sea Level





Barometer on E. Coast risen about 0·10

H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light variable winds and calms, fallen barometers, and smooth sea. Extremes of barometers and temperature: Esperance Bay, 30·14 and 62°; Cossack, 29·83; and Ashburton 86°

South Australia.—Generally fine, with light S.E. to N.E. winds and calms, slightly fallen barometers, and smooth sea. Few scattered clouds on the coast and in Northern Territory. Rainfall: Daly Waters, 0·15 inch. Extremes of barometer and the temperature on the coast: Cape Borda, 30·20; Eucla, 30·15; Adelaide, 70°; and M'Donnell Bay, 61°. In Northern Territory: Daly Waters, 29·95 and 85°; Port Darwin, 29·82 and 90°.

Victoria.—Generally cloudy and unsettled, with light S. to S.W. winds, risen barometers, and moderate sea. Squally at Wilson's Promontory. Rainfall: Omeo, 0·19; Lakes Entrance, 0·85; and a few points on the south coast. Extremes of barometers and temperature: Horsham, 30·14; Omeo, 30·00; Hamilton, 75°; and Cape Otway, 56°.

Tasmania.—Generally fine, with light scattered clouds, light variable winds, risen barometers, and smooth to moderate sea. Rough sea at Circular Heads. 0·03 inch fallen at Falmouth. Extremes of barometers and temperature: Circular Head, 29·98; Hobart, 29·91 and 62; Falmouth, 56°.

New Zealand.—Generally fine, with S.W. wind in extreme north, and W. to S.W. winds in south parts. Barometers: Russell, 30·0; Wellington, 29·8; and Bluff. 29·7.

New South Wales.—Generally fine and clear, with fresh southerly winds, rising barometers, and smooth to moderate sea. Rain has fallen in south and north parts of the eastern division of the colony; heaviest at Gabo Island, where 1·98 inches fell, the weather there being still showery and squally from west, with rather rough sea. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·20; Gabo Island, 29·92; Lismore, 74°; and Cooma, 48°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level at 9 a.m., 30·001. Extra stations: Bega, rain December 9, 0·36; Lake Cudgellico, max. 78°, min. 58°, calm and fine. For further particulars see map.

Queensland.—Generally fine, with clouds in places, light S.E. to S.W. winds, fallen barometers, and smooth sea. Rainfall: 0·35 inch at Cape Moreton. Extremes of barometers and temperature: Cooktown, 30·08; Cape Moreton, 29·95 and 72°; Townsville, 95°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 23, cloudy, smooth sea, temperature 61°; Cape Otway, W.S.W., 18, cloudy, smooth sea, temperature 61°; Melbourne, S.S.W., 13, cloudy, temperature 63°; Cape Schanck, S.S.W., 13, cloudy and misty, smooth sea, temperature 61°; Wilson's Promontory, W.N.W., 28, passing showers and squally, moderate sea, temperature 59°; Lakes Entrance, W., 23, cloudy, temperature 67°.

New South Wales.—Menindie, S., fine and clear, temperature 73°; Wentworth, E., fine, temperature 68°; Deniliquin, S.W., 14, fine and clear, temperature 73°; Eden, S.W., 14, fine, smooth sea, temperature 70°; Moruya, S.E., 28, fine, moderate sea, temperature 68°; Cape St. George, S.E., 28, fine, moderate sea, temperature 68°; Sydney, S.E., 18, fine and squally, moderate sea, temperature 69°; Newcastle, S.S.E., 28, fine, sea rising, temperature 68°; Port Macquarie, S., 42, fine, smooth sea, temperature 76°; Clarence River, S., 14, fine, smooth sea, temperature 75°; Walgett, S.W., 14, fine, temperature 78°; Dubbo, S.W., fine, temperature 71°; Goulburn, N.W., 14, fine, temperature 67°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 16 feet. Barwon: At Mogil Mogil, 16 feet 6 inches; at Walgett, 19 feet. Namoi: At Walgett, low. Culgoa: At Goodooga, low. Darling: At Brewarrina, 15 feet; at Bourke, 22 feet; at Louth, 26 feet 7 inches; at Tilpa, 35 feet 4 inches; at Wilcannia, 32 feet 11 inches; at Menindie, 27 feet 4 inches; at Pooncarie, 24 feet 3 inches; at Wentworth, 16 feet 11 inches. Murrumbidgee: At Gundagai, 17 feet; at Wagga, 19 feet 3 inches; at Hay, 3 feet 6 inches; at Balranald, 7 feet 7 inches. Murray: At Albury, 6 feet; at Euston, 13 feet 4 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 11.

Sun rises at 4.44, sets at 7.3; Moon, 6.58 p.m., 4.24 a.m.; Mercury, 8.56 a.m., 5.43 p.m.; Venus, 4.52 a.m., 7.10 p.m.; Mars, 6.59 a.m., 9.17 p.m.; Jupiter, 1.59 a.m., 2.57 p.m.; Saturn, 9.11 p.m., 7.11 a.m. Full Moon, 11th; new Moon, 25th.

High water at Fort Denison, 7.58 a.m., 8.20 p.m.

Stations	wt	Mx	mn	R'in
Albury	b	77	53	0
Armidale	b	97	56	0
Balranald	b	91	59	0
Bathurst	b	75	50	0
Bend'm't	b	78	53	0
Bodalla ..	r	79	59	0·07
Bourke ..	b	83	61	0
Br'w rrina	b	94	47	0
Bundarra	b	77	57	0
C'md'n H	c	73	60	0
C. St. Geo	r	72	60	0
Carcoar ..	b	70	58	0
Casino ..	c	88	61	0
Cassilis ..	b	75	61	0
Clarence	b	79	66	0
C'nd'b'lin	b	92	46	0
Cooma ..	c	75	54	0
Coonab'n	b	74	42	0
Cowra ..	b	85	59	0
Deniliq'n	b	81	49	0
Dubbo ..	b	80	53	0
Eden	b	73	57	0
Euston ..	b	88	55	0
Forbes ..	b	—	60	0
Gl'n Inn's	c	90	56	0
Goulburn	b	75	53	0
Grafton ..	b	—	65	0
Gulgong	b	77	47	0
Gunned'h	b	84	58	0
Hay	b	82	49	0
Inverell ..	c	82	59	0
Kiandra	c	72	45	0
Lismore	b	82	67	0
Maitland	b	81	62	0
Marsdens	b	79	62	0
Menindie	b	74	64	0
Molong ..	b	82	50	0
M'r'ng'r'll	b	80	57	0
Moree ..	g	89	59	0
Moruya ..	r	72	59	0·21
Moss Vale	u	73	66	0
Mt. Hope	b	85	—	0
M. Vict'ria	g	77	50	0
Mudgee	c	83	52	0
M'rr'mb'h	b	77	49	0
M'rr'r'ndi	b	76	60	0
Mus'br'k	b	97	54	0
Narrabri	b	88	73	0
Newcastle	b	76	64	0
Orange ..	b	68	47	0
Picton ..	c	75	60	0
P. M'q'rie	b	80	54	0
P. St'ph'n	b	77	57	0
Q'nbeyan	c	73	58	0
Quirindi	b	80	60	0
Singleton	b	82	61	0
Sydney ..	c	72	62	0·01
Tamw'rth	b	78	52	0
Taralga ..	b	76	51	0
Taree	b	81	61	0
T'nt'rfield	g	82	66	0
Wagga ..	b	82	52	0
Walcha ..	o	73	50	0
Walgett ..	b	82	61	0
Warrah ..	b	80	54	0
W'ntw'rth	b	85	59	0
W'll'ng ng	c	76	62	0
Young ..	b	85	50	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S. LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to NOV. 30 47·226
Total Rainfall from January 1st to DEC. 11 37·283
Barometers corrected to 32° Fah. and Mean Sea Level

Fine; wind N. Cloud N. T. storm; wind S. Rain; wind W. (If it is calm, the symbol is used without the arrow.) Smooth sea. Heavy sea. Very heavy sea.

H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden: Ma, Moruya; C, Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Fine on the south coast, with light E. to N.E. winds, fallen barometers, and smooth sea. Albany, barometer 29·88; Esperance Bay, 29·96, and temperature 66°.

South Australia.—Generally fine, with light scattered clouds, light N.E. to S.E. winds, fallen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature on the coast: Robe, 30·12; M'Donnell Bay, 58°; Port Augusta, 30·01; and Adelaide, 73°. In Northern Territory: Daly Waters, 29·90 and 85°, Port Darwin, 30·03 and 88°.

Victoria.—Generally fine but cloudy, with light S.E. to S.W. winds, risen barometers, and moderate sea. Rainfall, 0·02 inch at Cape Otway. Extremes of barometers and temperature: Cape Otway, 30·21 and 55; Echuca, 30·01; and Horsham, 62°.

Tasmania.—Fine in north, gloomy and passing showers in south parts, with fresh southerly winds, and moderate to rough sea. Rainfall: 0·12 inch at Southport, Extremes of barometers and temperature: Southport, 30·12 and 49°; Falmouth, 30·03; and Hobart, 53°.

New Zealand.—Showery in extreme north and south parts. 0·65 inch rain fallen at Wellington. N.W. to S.W. winds. Barometers; Russell, 29·7; Wellington, 29·3; and Bluff, 29·4.

New South Wales.—Generally fine and cool, with light variable winds (chiefly easterly on and near the coast), rising barometers, and smooth to moderate sea. Cloudy in scattered places in the eastern division, principally in south parts. Light rain falling at places on the coast south of Sydney. Extremes of barometers and temperature at 9 a.m.: Menindie, 30·12; Dubbo, 29·96; Bourke, 77°; and Mount Victoria, 60°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level at 9 a.m., 30·057. Extra stations: Lake Cudgellico, max. 81°, min. 55°, clear, fine, and warm. For further particulars see map.

Queensland.—Generally cloudy and unsettled, with light S.E. to E. winds and calms, rising barometers, and moderate sea. Raining at Rockhampton, and 0·74 inch fallen. Extremes of barometers and temperature at 9 a.m.: Brisbane, 30·02; Cape Moreton, 29·89 and 72°; Cooktown, 90°.

3 P.M. OBSERVATIONS.

New South Wales.—Menindie, S.W., 14, fine, hot, temperature 75°; Wentworth, S., fine, warm, temperature 72°; Deniliquin, calm, fine, temperature 75°; Eden, S.E., 14, fine, little sea, temperature 65°; Moruya, S.E., 14, cloudy, smooth sea, temperature 64°; Cape St. George, S., 10, fine, sea going to smooth, temperature 68°; Newcastle, E., 10, fine, sea smooth, temperature 70°; Port Macquarie, E., 14, fine, sea smooth, temperature 78°; Clarence River, S.S.E., 10, cloudy, sea smooth, temperature 77°; Dubbo, calm, fine, temperature 75°; Goulburn, E.N.E., 10, fine, temperature 71°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 16 feet. Barwon: At Mogil Mogil, 16 feet; at Walgett, 19 feet 2 inches. Namoi: At Walgett, low. Culgoa: At Goodooga, low. Darling: At Brewarrina, 14 feet 10 inches; at Bourke, 21 feet 8 inches; at Louth, 25 feet 8 inches; at Tilpa, 34 feet 11 inches; at Wilcannia, 32 feet 1 inch; at Menindie, 27 feet 4 inches; at Pooncarie, 24 feet 3 inches; at Wentworth, 16 feet. Murrumbidgee: At Gundagai, 10 feet; at Wagga, 21 feet 8 inches; at Hay, 3 feet 3 inches; at Balranald, 7 feet 8 inches. Murray: At Albury, 6 feet 10 inches; at Euston, 13 feet 3 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 13.

Sun rises at 4.45, sets at 7.4; Moon, 8.53 p.m., 6.7 a.m.; Mercury, 3.46 a.m., 5.31 p.m.; Venus, 4.53 a.m., 7.13 p.m.; Mars, 6.58 a.m., 9.15 p.m.; Jupiter, 1.53 a.m., 2.51 p.m.; Saturn, 9.3 p.m., 7.3 a.m. Full Moon, 11th; new Moon, 25th.

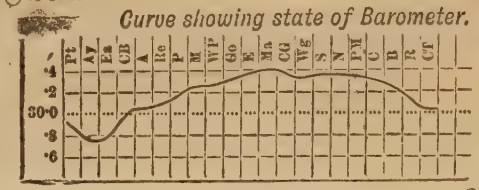
High water at Fort Denison, 9.27 a.m., 9.49 p.m.

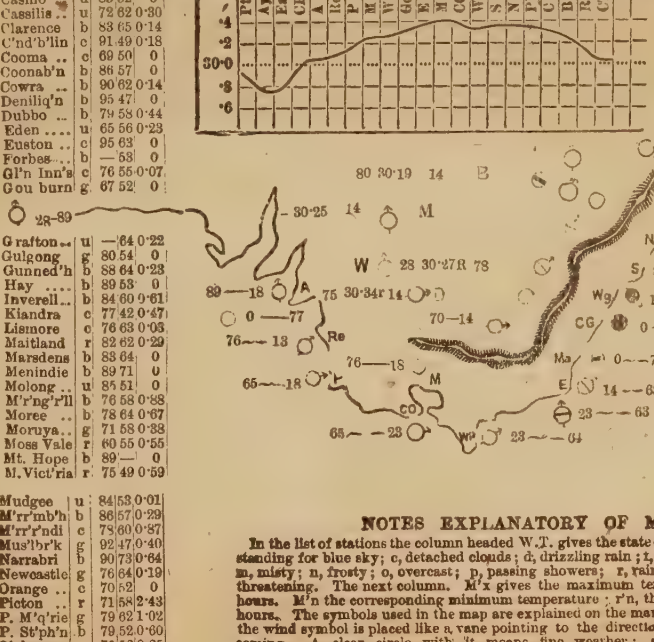
Stations	wt	Mx	Mn.	Rain
Albury	b	86	54	0·10
Armidale	b	76	56	0·36
Balranald	b	92	59	0
Bathurst	g	79	55	0·70
Bend'm'r	g	75	56	0·72
Bodalla ..	g	69	53	0·57
Bourke ..	b	95	66	0
Br'w rrina	b	101	53	0·28
Bundarra	b	70	61	0·31
C'md'n H	u	79	64	0
C. St. Geo	r	70	60	1·38
Carcoar ..	g	67	51	0
Casino ..	u	83	52	0
Cassilis ..	u	72	62	0·30
Clarence	b	83	65	0·14
C'nd'b'lin	c	91	49	0·18
Cooma ..	c	69	50	0
Coonab'n	b	86	57	0
Cowra ..	b	90	62	0·14
Deniliq'n	b	95	47	0
Dubbo ..	b	79	58	0·44
Eden	u	65	56	0·23
Euston ..	c	95	63	0
Forbes ..	b	—	58	0
Gl'n Inn's	c	76	55	0·07
Gou burn	g	67	52	0
Grafton ..	u	—	64	0·22
Gulgong	g	80	54	0
Gunned'h	b	88	64	0·23
Hay	b	89	53	0
Inverell ..	b	84	60	0·61
Kiandra	c	77	42	0·47
Lismore	c	76	63	0·05
Maitland	r	82	62	0·29
Marsdens	b	83	64	0
Menindie	b	89	71	0
Molong ..	u	85	51	0
M'r'ng'r'll	b	76	58	0·88
Moree ..	b	78	64	0·67
Moruya ..	g	71	58	0·38
Moss Vale	r	60	55	0·55
Mt. Hope	b	89	—	0
M. Vict'ria	r	75	49	0·59
Mudgee	u	84	53	0·01
M'rr'mb'h	b	86	57	0·29
M'rr'r'ndi	c	79	60	0·87
Mus'br'k	g	92	47	0·40
Narrabri	b	90	73	0·64
Newcastle	g	76	64	0·19
Orange ..	c	70	52	0
Picton ..	r	71	58	2·43
P. M'q'rie	g	79	62	1·02
P. St'ph'n	b	79	52	0·60
Q'nbeyan	c	75	56	0·25
Quirindi	o	82	61	0·05
Singleton	u	74	64	0·47
Sydney ..	r	70	61	1·80
Tamw'rth	b	75	60	0·06
Taralga ..	u	72	53	0·40
Taree	b	79	64	0·83
T'nt'rfield	c	87	54	0·03
Wagga ..	b	87	54	0
Walcha ..	b	65	49	0·08
Walgett ..	b	96	65	0
Warrah ..	b	78	60	0·45
W'ntw'rth	b	94	69	0
W'll'ng ng	r	72	61	2·98
Young ..	b	82	59	0·68

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·8s. E.

Average Annual Rainfall for 27 years..... ... 49·285
Average for 28 years from Jan. 1st to NOV. 30 47·226
Total Rainfall from January 1st to DEC. 13 39·086
Barometers corrected to 32° Fah. and Mean Sea Level





Barometers on E. Coast risen about 0·25

H. C. RUSSELL
GOVERNMENT ASTRONOMER.

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, hot, and sultry, with southerly winds on the east coast, northerly in south parts, fallen barometers, and smooth sea. Extremes of barometers and temperature: Perth, 29·89 and 65°; Albany, 29·75; and Ashburton, 92°.

South Australia.—Generally fine and hot, with light N. to N.E. winds, fallen barometers, and smooth sea: squally in places. Rainfall: Port Darwin, 0·62. Extremes of barometers and temperature on the coast: M'Donnell Bay, 30·12 and 74; Eucla, 29·79; and Adelaide, 89°. In Northern Territory: Daly Waters, 30·15 and 88; Port Darwin, 29·75 and 99°.

Victoria.—Generally fine and clear, with light N. to E. winds, risen barometers and smooth sea. Rainfall, 0·08 inch at Omeo, and 0·01 at Lakes Entrance. Extremes of barometers and temperature: Lakes Entrance, 30·34; Ballarat, 30·10; Echuca, 75°; and Cape Schanck, 64°.

Tasmania.—Generally fine, with light N.E. to E. winds and calms, risen barometers, and smooth sea. Rough sea at Circular Heads. Extremes of barometers and temperature: Falmouth, 30·45 and 59°; Circular Heads, 30·33; and Hobart, 65°.

New Zealand.—Fine in North Island, showery at Bluff, with N.W. to S.W. winds; strong S.W. wind blowing on the N.W. coast. Barometers; Russell, 30·2; Wellington, 29·9; and Bluff, 29·8.

New South Wales.—Cloudy and threatening in the eastern division, with light rain falling in coast districts W. and S. of Sydney. Fine and clear west of the range. During the last 48 hours rain has fallen in the eastern division generally; heaviest on the coast. Wollongong, Picton, Sydney, Camden, Cape St. George, and Port Macquarie report:—2·98, 2·43, 1·80, 1·25, 1·38, and 1·02 inches fallen respectively. The winds generally are light from N. to E. and S.E.; barometers are high and rising, and the sea is smooth. Extremes of barometers and temperature at 9 a.m.: Moruya, 30·41; Bourke, 30·19; Wentworth, 78°, and Mount Victoria, 78°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·334. For further particulars see map.

Queensland.—Generally cloudy and threatening in extreme south parts. Raining at Rockhampton, Townsville, and Cooktown, with light S.E. to E. winds, risen barometers, and smooth to moderate sea. Extremes of barometers and temperature: Brisbane, 30·21; Cooktown, 30·02 and 83°; and Rockhampton, 71°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E., 13, fine, smooth sea, temperature 72°; Cape Otway, E., 23, sultry and hazy, smooth sea, temperature 71°; Melbourne, W.N.W., 8, fine, temperature 84°; Cape Schanck, E., 13, fine and hazy, smooth sea, temperature 67°; Wilson's Promontory, N.E., squally and hazy, moderate sea, temperature 70°; Lakes' Entrance, E., 18, fine but cloudy, temperature, 72°.

New South Wales.—Menindie, calm, cloudy and hot, temperature 85°; Wentworth, N.E., 14, raining lightly, temperature 76°; Deniliquin, calm, fine, temperature 84°; Eden, E.N.E., 23, like rain, smooth sea, temperature 66°; Sydney, E.N.E., 21, overcast, dull and squally, moderate sea, temperature 68°; Newcastle, E., 14, showery, sea smooth, temperature 70°; Port Macquarie, S.E., 14, overcast, sea smooth, temperature 74°; Clarence River, E., 14, showery, sea smooth, temperature 71°; Walgett, N.E., 14, fine, temperature 81°; Dubbo, N.E., 14, stormy, temperature 75°; Goulburn, E.N.E., 14, dull, temperature 68°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 15 feet. Barwon: At Mogil Mogil, 15 feet; at Walgett, 21 feet. Namoi: At Walgett, 3 feet 6 inches. Culgoa: At Goodooga, low. Darling: At Brewarrina, 14 feet 8 inches; at Bourke, 21 feet; at Louth, 23 feet 6 inches; at Tilpa, 33 feet 10 inches; at Wilcannia, 33 feet 1 inch; at Menindie, 27 feet 4 inches; at Pooncarie, 23 feet 10 inches; at Wentworth, 16 feet 6 inches. Murrumbidgee: At Gundagai, 8 feet; at Wagga, 9 feet 3 inches; at Hay, 4 feet; at Balranald, 7 feet 9 inches. Murray: At Albury, 5 feet 8 inches; at Euston, 13 feet 1 inch.

ASTRONOMICAL MEMORANDA FOR DECEMBER 14.

Sun rises at 4.45, sets at 7.5; Moon, 9.44 p.m., 7.7 a.m.; Mercury, 3.42 a.m., 5.26 p.m.; Venus, 4.54 a.m., 7.14 p.m.; Mars, 6.58 a.m., 9.14 p.m.; Jupiter, 1.49 a.m., 2.47 p.m.; Saturn, 8.58 p.m., 6.58 a.m. Full Moon, 11th; new Moon, 25th.

High water at Fort Denison, 10.10 a.m., 10.32 p.m.

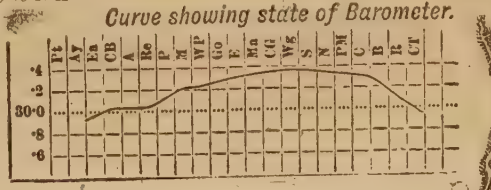
Stations	wt	Mx	Mn	R'in
Albury	b	88	59	0
Armidale	g	69	55	0·08
Balranald	b	104	51	0
Bathurst	c	74	51	0·18
Bend'm'r	b	72	56	0
Bodalla ..	b	73	60	0
Bourke ..	b	96	69	0
Br'w'rrina	b	100	56	0
Bundarra	b	82	62	0·55
C'md'n H	c	76	66	0
C.St.Geo	r	70	60	0·45
Carcoar ..	b	70	51	0·03
Casino ..	c	84	64	0·07
Cassilis ..	c	75	63	0
Clarence	c	83	65	0·39
C'nd'b'lin	b	88	51	0
Cooma ..	c	77	51	0·23
Coonab'n	b	86	57	0
Cowra ..	b	86	61	0
Deniliq'n	b	98	61	0
Dubbo ..	b	87	57	0·04
Eden	h	68	59	0
Euston ..	b	95	65	0
Forbes ..	b	—	54	0
Gl'n Inn's	g	81	56	0·02
Goulburn	b	70	52	0·01
Grafton ..	u	—	63	0·67
Gulgong	b	78	52	0
Gunned'h	b	87	64	0
Hay	b	93	53	0
Inverell ..	b	82	65	0
Kiandra	g	73	45	0·53
Lismore	r	82	62	0·22
Maitland	c	78	67	0·03
Marsdens	b	85	67	0
Menindie	b	92	71	0
Molong ..	b	77	53	0
M'r'ng'r'll	b	87	61	0
Moree ..	b	90	65	0·23
Moruya ..	b	74	58	0·01
Moss Vale	u	62	55	0·25
Mt. Hope	b	86	—	0
M.Vict'ria	g	64	49	0·42
Mudgee	b	82	52	0·01
M'rr'mb'h	b	80	58	0
M'rr'r'ndi	g	74	58	0·04
Mus'lbr'k	g	86	57	0
Narrabri	b	92	74	0
Newcastle	g	70	64	0
Orange ..	b	71	51	0·18
Picton ..	c	66	58	0·52
P. M'q'rie	c	75	62	0·21
P. St'ph'n	c	75	60	0
Q'nbeyan	b	70	58	0
Quirindi	g	80	62	0
Singleton	b	75	64	0
SYDNEY ..	u	70	63	0·04
Tamw'rth	b	85	60	0·31
Taralga ..	b	65	52	0
Taree	c	79	65	0·08
T'nt'rfield	u	75	56	0·25
Wagga ..	b	91	59	0·25
Walcha ..	o	69	49	0·08
Walgett ..	b	91	67	0
Warrah ..	b	80	57	0·10
W'ntw'rth	b	95	65	0
W'll'ng'ng	r	66	61	0·83
Young ..	b	85	56	0

SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years..... .. 49·265
Average for 28 years from Jan. 1st to NOV. 30 47·220
Total Rainfall from January 1st to DEC. 14 39·126
Barometers corrected to 32° Fah. and Mean Sea Level

Fine, wind N. Clouds in E. T. storm, wind S. Rain, wind W.
If it is CALM, the symbol is used without the arrow.
Smooth sea. Heavy sea. Very heavy sea.



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature: R'in the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—No telegrams.

South Australia.—Generally fine and hot, with fresh N.E. to N.W. winds, steady barometers, and smooth sea; no rain fallen. Extremes of barometers and temperature on the coast: Port Augusta, 30·07; Eucla, 29·97; Adelaide, 92°; and M'Donnell Bay, 73°. At Eucla the highest temperature in the shade yesterday reached 114 degrees. In Northern Territory: Daly Waters, 29·86 and 87°; Port Darwin, 29·70 and 90°.

Victoria.—Generally fine and sultry, with light N.W. to N.E. and E. winds, slightly fallen barometers, and smooth sea; foggy at Wilson's Promontory, and misty at Cape Otway. Rainfall: Hamilton, 0·16; Omeo, 0·06; and Ballarat, 0·03 inch. Extremes of barometers and temperature: Lake's Entrance, 30·31; Portland, 30·07; Wilson's Promontory, 65°; and Echuca, 80°.

Tasmania.—Generally fine, with light scattered clouds, light N. to E. winds, slightly fallen barometers, and smooth sea (rough sea off Circular Heads. Extremes of barometers and temperature: Low Heads: 30·37; Hobart, 30·26 and 72°; Falmouth, 61°.

New Zealand.—Generally fine, with N.W. to S.W. winds. Barometers: Russell, 30·2; Wellington, 29·9; and Bluff, 29·8.

New South Wales.—Fine and warm west of the range, cloudy and unsettled, with light rain at a few places, on and near the coast; light N.E. to S.E. winds, high and steady barometers, and smooth sea. Light rain has fallen along the range and coast; heaviest at Wollongong, where 0·83 inch fell, and it was still raining at 9 a.m. Extremes of barometers and temperature at 9 a.m.: Wollongong, 30·34; Bourke, 30·16; Wentworth, 84°; and Mount Victoria, 55°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 30·335. Extra stations: Lake Cudgellico, max. 81°, min. 66°, fine and clear; Camden, rainfall 0·30 inch, and showery weather. For further particulars see map.

Queensland.—Generally cloudy and unsettled, showery at Rockhampton and Townsville, light S.E. winds and calms, and moderate to rough sea. Rainfall: Rockhampton, 1·48; Townsville, 0·94; Cape Moreton, 0·59; and Cooktown, 0·16 inch. Extremes of barometers and temperature: Brisbane, 30·20; Cooktown, 29·97; Rockhampton, 95°; and Cape Moreton, 69°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.N.E., 18, fine, and sultry, smooth sea, temperature 77°; Cape Otway, E., 23, fine smooth sea, temperature 72°; Melbourne, N.E., 13, fine, temperature 89°; Cape Schanck, N.E., 13, fine but cloudy, smooth sea, temperature 69°; Wilson's Promontory, N.E., 18, hazy and sultry, smooth sea, temperature 73°; Lakes' Entrance, E., 13, fine, temperature, 75°.

New South Wales.—Menindie, calm, fine and hot, temperature 87°; Wentworth, W., fine and hot, temperature 81°; Deniliquin, calm, fine, temperature 86°; Eden, N.E., 28, fine, smooth sea, temperature 71°; Moruya, N.E., 28, fine, smooth sea, temperature 71°; Cape St. George, N., 28, fine, smooth sea, temperature 69°; Sydney, E., 16, fine and sultry, smooth sea, temperature 70°; Newcastle, N.E., 14, fine, smooth sea, temperature 70°; Port Macquarie, S.E., 28, showery, smooth sea, temperature 80°; Clarence River, S. E., 14, dull smooth sea, temperature 75°; Walgett, N.E., fine, temperature 92°; Dubbo, E., 14, fine temperature 78°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 14 feet. Barwon: At Mogil Mogil 16 feet; at Walgett, 22 feet. Namoi: At Walgett, 5 feet. Culgoa: At Goodooga, low. Darling: At Brewarrina, 14 feet 6 inches; at Bourke, 20 feet; at Louth, 22 feet 4 inches; at Tilpa, 33 feet 1 inch; at Wilcannia, 35 feet 2 inches; at Menindie, 27 feet 4 inches; at Pooncarie, 23 feet 9 inches; at Wentworth, 16 feet 5 inches. Murrumbidgee: At Gundagai, 7 feet; at Wagga, 7 feet 9 inches; at Hay, 6 feet; at Balranald, 7 feet 10 inches. Murray: At Albury, 5 feet; at Euston, 12 feet 11 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 15.

Sun rises at 4.45, sets at 7.5; Moon, 10.33 p.m., 8.10 a.m.; Mercury, 3.40 a.m., 5.25 p.m.; Venus, 4.55 a.m., 7.16 p.m.; Mars, 6.58 a.m., 9.13 p.m.; Jupiter, 1.45 a.m., 2.44 p.m.; Saturn, 8.54 p.m., 6.54 a.m. Full Moon, 11th; new Moon, 25th.

High water at Fort Denison, 10.33 a.m., 11.16 p.m.

METEOROLOGICAL REPORTS AND MAP FOR TELEGRAPHIC

Stations	wt	Mx.	Mn.	r'in
Albury	b	90	64	0
Armidale	b	70	55	0·03
Balranald	b	107	67	0
Bathurst	b	76	53	0·02
Bend'm'r	b	72	55	0·02
Bodalla ..	b	79	56	0
Bourke ..	b	97	67	0
Br'w'rina	b	105	52	0
Bundarra	b	76	58	0·57
C'md'n H	g	75	66	0·38
C.St.Geo	b	74	58	0·07
Carcoar ..	b	70	61	0
Casino ..	r	77	61	0·44
Cassilis ..	o	76	63	0
Clarence	r	76	68	0
C'nd'b'lin	b	91	51	0
Cooma ..	g	82	50	0
Coonab'n	b	86	54	0·33
Cowra ..	b	85	63	0
Deniliq'n	b	104	63	0
Dubbo ..	b	87	57	0
Eden	b	75	62	0
Euston ..	b	110	71	0
Forbes ..	b	—	55	0
Gl'n Inn's	b	68	54	0·03
Goulburn	b	79	51	0
Grafton ..	b	—	64	0·05
Gulgong	b	78	54	0
Gunned'h	b	87	62	1·00
Hay	b	95	53	0
Inverell ..	b	80	56	0
Kiandra	b	77	42	0·31
Lismore	r	76	66	0·24
Maitland	c	79	60	0·04
Marsdens	b	87	67	0
Menindie	b	94	78	0
Molong ..	b	83	56	0·35
M'r'ng'r'll	b	84	62	0
Moree ..	b	89	62	0·40
Moruya ..	b	75	59	0
Moss Vale	b	82	55	0·04
Mt. Hope	a	91	—	0
M.Vict'ria	c	66	50	0·28
Mudgee	b	83	52	0
M'rr'mb'h	b	84	59	0
M'rr'ndi	b	75	53	0·25
Mus'br'k	b	86	54	0
Narrabri	b	92	82	0·30
Newcastle	b	73	62	0
Orange ..	b	75	51	0
Picton ..	c	69	58	0·53
P. M'q'rie	g	79	63	0·07
P. St'ph'n	b	78	51	0
Q'nbeyan	b	74	59	0
Quirindi	b	74	60	0·33
Singleton	b	72	61	0
Sydney ..	c	71	61	0·09
Tamw'rth	b	79	55	0·35
Taralga ..	b	73	52	0
Taree	b	78	65	0·01
T'nt'rfield	c	69	45	0·05
Wagga ..	b	91	62	0
Walcha ..	u	64	49	0·05
Walgett ..	b	95	63	0
Warrah ..	b	82	56	0·46
W'ntw'rth	b	103	73	0
W'll'ng'g	b	73	55	0·03
Young ..	b	90	56	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·81s. E.

Average Annual Rainfall for 27 years.... 49·865
Average for 28 years from Jan. 1st to NOV. 30 47·226
Total Rainfall from January 1st to DEC. 15 39·211
Barometers corrected to 32° Fah. and Mean Sea Level

Fine wind N. Cloudy in E.
T. storm Rain wind S. wind W.
If it is CALM, the symbo. caused without the arrow.
Smooth sea.
Heavy sea.
Very heavy sea.

13 30·11 F 89

Curve showing state of Barometer.

Pt, Ay, Ba, CB, A, Re, P, M, WP, Go, E, Ma, CG, Ws, S, N, PM, C, B, R, Ct

30·0

TIME BALL
Drops at 1 p.m. SMT
2h. 55m. 0·73s. a.m.
Greenwich Mn. Time
Mag. Var. 9° 35′ 37″ E.

79 30·20F 28 3

18—70

30·26f 14 M

W 28 30·27 F 87

81—8 A 82 30·27f 14 0

23—70

61 Re

73—14

79—8 M

80—28

CO

80—40 WP 8—71

PM 14—73

N 14—72

S 4—70

Ws 14—71

CG 14—72

Ma 28—73

E 28—76

31 67

B 78

C 28—72

R 71

Barometers on E. Coast fallen about 0·02

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along westwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light S. to E. winds, risen barometers, and smooth sea; cloudy in S. E. parts. Extremes of barometers and temperature: Esperance Bay, 30·28 and 67°; Cossack, 29·67; and Ashburton 93°.

South Australia.—Generally fine and hot inland, cloudy and sultry on and near the coast, with S.W. to S. winds, risen barometers, and moderate sea. Rainfall: 1·02 inch at Port Darwin. Extremes of barometers and temperature on the coast: Eucla, 30·18; Robe, 30·06; Adelaide, 81°; and M'Donnell Bay, 66°. In Northern Territory: Port Darwin, 29·65 and 84°; Daly Waters, 29·83 and 86°.

Victoria.—Cloudy and sultry in west parts, fine in east, with light northerly winds, fallen barometers, and smooth sea. Squally and hot north wind blowing at Cape Otway. No rain fallen. Extremes of barometers and temperature: Omeo, 39·10; Wilson's Promontory, 30·01 and 71°; on the S.W. Coast, 80°.

Tasmania.—Generally fine, with light scattered clouds, light northerly winds, fallen barometers, and smooth sea. Rough sea at Circular Heads. Extremes of barometers and temperature: Low Heads, 30·09; Hobart, 29·89 and 71°; Falmouth and Circular Heads, 64°.

New Zealand.—Generally fine, with southerly winds and barometers at 30·2. Strong south wind blowing on the east coast.

New South Wales.—Generally fine and warm, with light N.E. to S.E. winds, slightly fallen barometers and smooth sea. Cloudy in N.E. parts, and raining in the Clarence district. Light rain has fallen in the eastern division generally; heaviest in north parts near the range. Extremes of barometers and temperature at 9 a.m.: Sydney, 30·33; Dubbo, 30·19; Wentworth, 87°; and Mount Victoria, 57°. Extra stations: Camden, rainfall 0·55 inch, and cloudy; Lake Cudgellico, max. 81°, min. 65°, fine, clear, and warm. For further particulars see map.

Queensland.—Generally cloudy and unsettled, with S.E. to S.W. winds, steady barometers, and moderate to rough sea. Showery at Brisbane and Cooktown. Rainfall: Bookhampton, 0·64; Cooktown, 0·35; Cape Moreton, 0·33; and Brisbane, 0·15 inch. Extremes of barometers and temperature: Brisbane, 30·18; Cooktown, 29·98 and 89°; Brisbane, 68°.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, N.W., 18, cloudy and gloomy, smooth sea, temperature 76°; Melbourne, N., 13, cloudy, temperature 90°; Cape Schanck, calm, cloudy, smooth sea, temperature 73°; Wilson's Promontory, W., 28, cloudy and squally, smooth sea, temperature 84°; Lakes' Entrance, E., 23, fine but cloudy, temperature, 79°.

New South Wales.—Menindie, variable wind, fine and hot, temperature 89°; Wentworth, calm, fine and hot, temperature 95°; Deniliquin, calm, fine, and hot, temperature 91°; Eden, N.E., 28, fine, smooth sea, temperature 73°; Moruya, N.E., 42, fine, fresh gale, moderate sea, temperature 71°; Cape St. George, N., 28, fine, smooth sea, temperature 71°; Sydney, N.E., 16, fine and pleasant, smooth sea, temperature 72°; Newcastle, N.E., 14, fine, smooth sea, temperature 71°; Port Macquarie, E.N.E., 14, fine, moderate sea, temperature 79°; Clarence River, S.E., 28, fine moderate sea, temperature 74; Dubbo, N.E., 14, fine, temperature 78°; Goulburn, E.N.E., fine, temperature 71°.

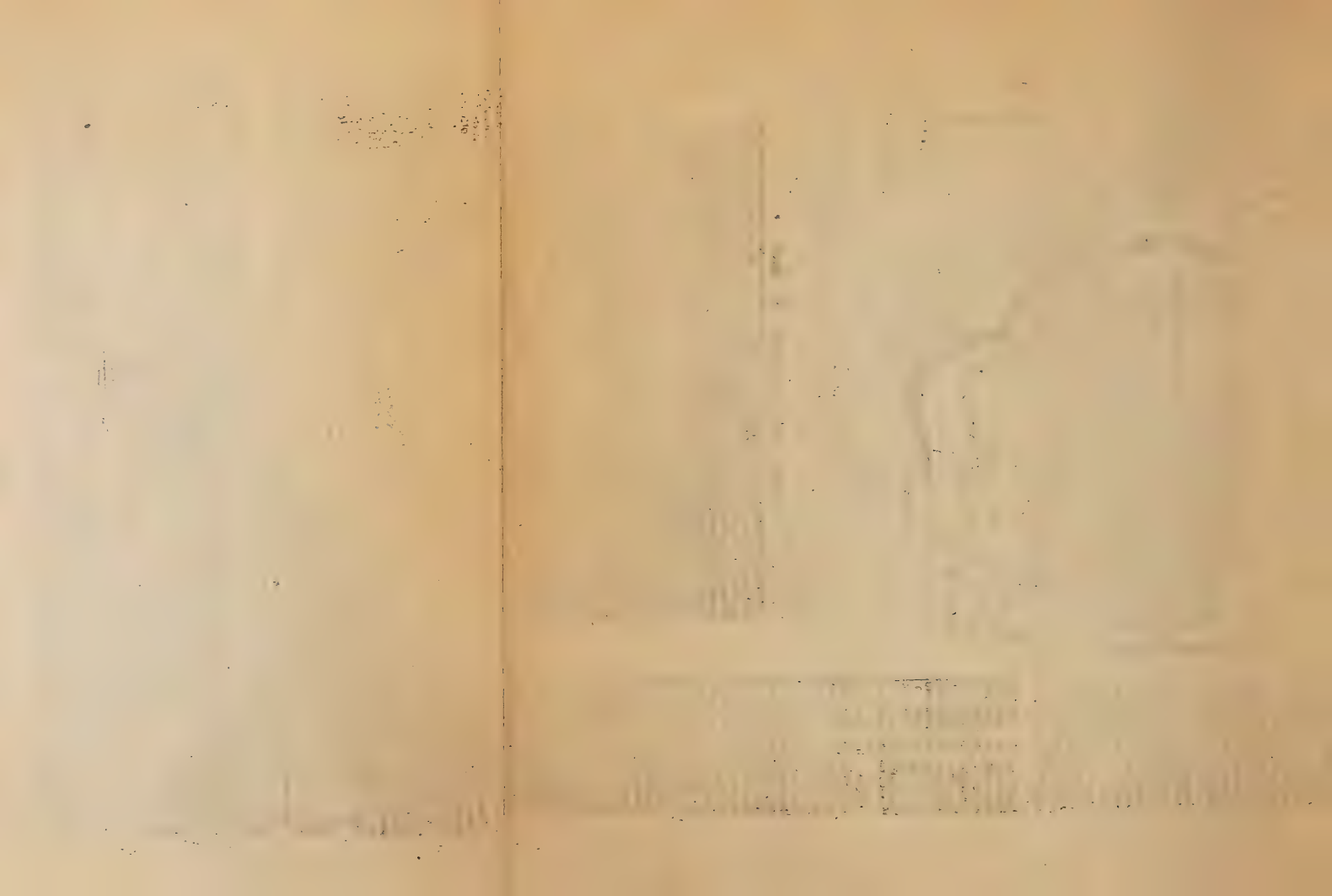
HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 13 feet. Barwon: At Mogil Mogil, 14 feet; at Walgett, 22 feet 6 inches. Namoi: At Walgett, 5 feet 6 inches. Culgoa: At Goodooga, low. Darling: At Brewarrina, 14 feet 4 inches; at Bourke, 19 feet 5 inches; at Louth, 21 feet; at Tilpa, 32 feet 3 inches; at Wilcannia, 33 feet 3 inches; at Menindie, 27 feet; at Pooncarie, 23 feet 9 inches; at Wentworth, 16 feet 4 inches. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 7 feet 3 inches; at Hay, 7 feet 8 inches; at Balranald, 7 feet 11 inches. Murray: At Albury, 4 feet 11 inches; at Euston, 12 feet 10 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 16.

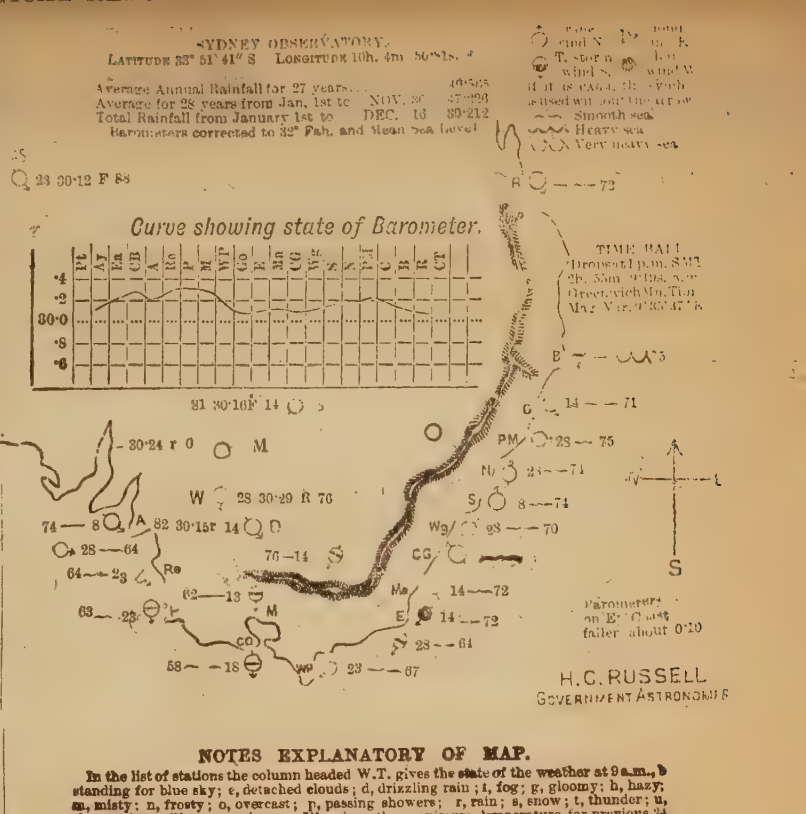
Sun rises at 4.45, sets at 7.6; Moon, 11.15 p.m., 9.13 a.m.; Mercury, 3.38 a.m., 5.25 p.m.; Venus, 4.56 a.m., 7.18 p.m.; Mars, 6.58 a.m., 9.12 p.m.; Jupiter, 1.42 a.m., 2.41 p.m.; Saturn, 8.50 p.m., 8.50 a.m. Full Moon, 11th; new Moon, 25th.

High water at Fort Denison, 11.38 a.m., —— p.m.



METEOROLOGICAL REPORT.

Stations	wt	Mx	mn	R'fall
Albury	c	85	70	0
Armidale	b	85	49	0
Balranald	b	110	68	0·04
Bathurst	b	81	53	0
Bend'm'r	f	78	46	0
Bodalla ..	b	80	59	0
Bourke ..	b	94	67	0
Br'w rrina	b	95	55	0
Bundarra	b	78	56	0
C'md'n H	g	77	60	0
C. St. Geo	b	87	63	0
Carcoar ..	b	73	56	0
Casino ..	b	72	52	0·39
Cassilis ..	b	77	58	0
Clarence	b	75	67	0·06
C'nd'b'lin	b	93	55	0
Cooma ..	c	90	57	0
Coonab'n	b	84	57	0
Cowra ..	b	93	66	0
Deniliq'n	b	103	61	0
Dubbo ..	b	86	57	0
Eden	r	76	61	0
Euston ..	b	109	69	0
Forbes ..	b	—	53	0
Gl'n Inn's	b	77	49	0
Gou'burn	b	88	56	0
Grafton ..	b	—	61	0·09
Gulgong	b	78	53	0
Gunned'h	b	85	63	0
Hay	b	97	53	0
Inverell ..	b	80	52	0
Kiandra	b	81	47	0
Lismore	b	78	62	0·06
Maitland	b	83	57	0
Marsdens	b	87	71	0
Menindie	b	96	77	0
Molong ..	b	84	50	0
M'r'ng'r'll	b	89	66	0
Moree ..	b	88	61	0
Moruya ..	h	76	61	0
Moss Vale	b	74	57	0
Mt. Hope	b	96	—	0
M. Vict'ria	n	81	52	0
Mudgee	b	84	51	0
M'rr'mb'h	b	77	59	0
M'rr'r'ndi	b	76	57	0
Mus'lbr'k	b	91	50	0
Narrabri	b	89	73	0
Newcastle	b	76	62	0
Orange ..	b	76	52	0
Picton ..	b	72	56	0
P. M'q'rie	b	76	55	0
P. St'ph'n	b	80	54	0
Q'nbeyan	b	80	64	0
Quirindi	b	80	59	0
Singleton	b	80	56	0
Sydney ..	b	75	60	0
Tamw'rth	b	91	58	0
Taralga ..	b	80	50	0
Taree	b	82	59	0
T'nt'rfield	c	68	52	0·04
Wagga ..	u	95	64	0
Walcha ..	b	67	40	0
Walgett ..	b	91	65	0
Warrah ..	b	81	61	0
W'ntw'rth	b	106	70	0
W'll'ng ng	b	74	64	0
Young ..	b	87	59	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ro, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light N.E. to S.E. winds, fallen barometers, and smooth sea. Extremes of barometers and temperature: Esperance Bay, 30·13 and 65°; Cossack, 29·66; and Ashburton 90°.

South Australia.—Generally fine and warm inland, cloudy and cool on and near the coast, with light S.E. to S. winds, risen barometers, and smooth sea. Extremes of barometers and temperature: M'Donnell Bay, 30·30 and 60°; Streaky Bay, 30·18; and Adelaide, 74°. In Northern Territory: Daly Waters, 29·86 and 80°; Port Darwin, 29·55 and 83°; and rainfall, 0·33 and 2·00 inches respectively.

Victoria.—Generally fine, with clouds near the coast, light southerly winds, risen barometers, and smooth sea. Passing showers at Lakes' Entrance. Squally at Wilson's Promontory. Extremes of barometers and temperature: Portland, 30·32 and 58°; Hamilton, 30·07; and Echuca, 75°.

Tasmania.—Generally fine, with light southerly winds, risen barometers, and moderate sea. Rough sea at Circular Head and Southport. Rainfall: 0·08 inch at Southport. Extremes of barometers and temperature: Circular Heads, 30·20 and 62°; Falmouth, 30·13 and 69°.

New Zealand.—Generally fine, with N.W. to S.W. winds; blowing strong from N.W. at Wellington. Barometers: Russell, 30·2; Wellington, 30·0; and Bluff, 29·8.

New South Wales.—Generally fine, with light variable winds and calms, falling barometers, and smooth sea. Cloudy at a few scattered stations, and dropping rain at Eden. Light rain has fallen in N.E. parts. Extremes of barometers and temperature at 9 a.m.: Walgett, 30·30; Cape St. George, 30·08; Hay, 86°; and Armidale, 60°. Reading of the standard barometer at Sydney, corrected to 32° Fahr., and mean sea level, at 9 a.m., 30·170. Extra stations: Lake Cudgellico, max. 98°, min. 68°, calm, fine, and hot. For further particulars see map.

Queensland.—Generally cloudy and unsettled, with light S. to S.E. winds, steady barometers, and rough sea. Heavy rain, and 5·15 inches fallen at Cooktown. Extremes of barometers and temperature: Brisbane, 30·13; Cooktown, 30·01 and 83°; Cape Moreton, 69°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 28, fine but cloudy, smooth sea, temperature 66°; Cape Otway, S., 18, fine, smooth sea, temperature 62°; Melbourne, S.S.W., 18, fine, temperature 65°; Cape Schanck, S., 13, fine but cloudy, smooth sea, temperature 68°; Wilson's Promontory, W.S.W., 23, squally, smooth sea, temperature 62°; Lakes' Entrance, W.S.W., 23, cloudy, temperature 66°.

New South Wales.—Menindie, W., 14, fine, temperature 90°; Wentworth, S., 14, fine and hot, temperature 83°; Deniliquin, calm, fine, and cool, temperature 83°; Eden, S., 28, fine, smooth sea, temperature 78°; Moruya, S., 28, raining, temperature 70°; Cape St. George, S., 28, fresh, like change, smooth sea, temperature 70°; Sydney, E.N.E., 19, fine and hazy, smooth sea, temperature 73°; Newcastle, N.E., 14, fine, moderate sea, temperature 72°; Port Macquarie, S., 14, fine, moderate sea, temperature 80°; Clarence River, S.E., 14, dull, moderate sea, temperature 78°; Walgett, S.E., 14, fine, temperature 83°; Dubbo, S.E., 14, fine, temperature 73°; Goulburn, W., 14, fine, temperature 74°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 12 feet. Barwon: At Mogil Mogil, 11 feet; at Walgett, 22 feet. Namoi: At Walgett, 6 feet. Culgoa: At Goodooga, low. Darling: At Brewarrina, 14 feet; at Bourke, 18 feet; at Louth, 20 feet; at Tilpa, 37 feet 3 inches; at Wilcannia, 33 feet 6 inches; at Menindie, 27 feet 4 inches; at Pooncarie, 23 feet 9 inches; at Wentworth, 16 feet 6 inches. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 6 feet 10 inches; at Hay, 8 feet; at Balranald, 7 feet 11 inches. Murray: At Albury, 4 feet 9 inches; at Euston, 12 feet 4 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 17.

Sun rises at 4.46, sets at 7.7; Moon, 11.56 p.m., 10.19 a.m.; Mercury, 3.36 a.m., 5.24 p.m.; Venus, 4.57 a.m., 7.20 p.m.; Mars, 6.57 a.m., 9.11 p.m.; Jupiter, 1.36 a.m., 2.38 p.m.; Saturn, 8.46 p.m., 6.46 a.m. Full Moon, 11th; new Moon, 25th.

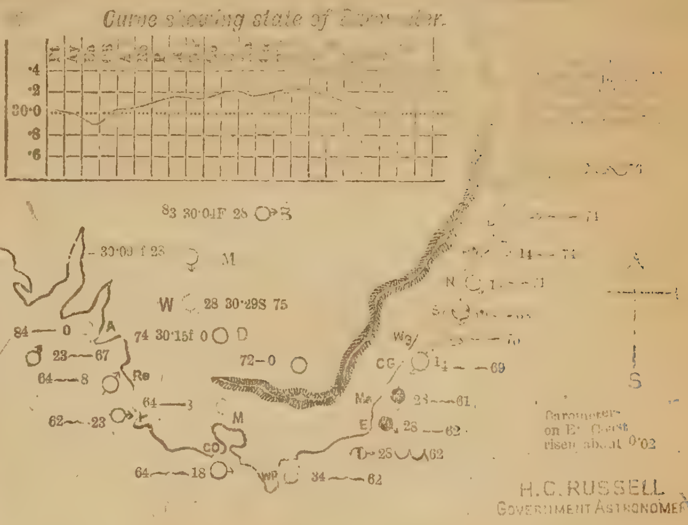
High water at Fort Denison, 12.1 a.m., 12.23 p.m.

Stations	W.T.	M'x	M'n	R'n
Albury	b	[illegible]	[illegible]	0
[illegible]dale	b	[illegible]	[illegible]	0
Balranald	b	[illegible]	[illegible]	0
Bathurst	c	[illegible]	[illegible]	0·19
[illegible]	c	[illegible]	[illegible]	0
Bodalla	r	[illegible]	[illegible]	[illegible]
Bourke	b	[illegible]	[illegible]	0
Br'w rrina	b	[illegible]	[illegible]	0
[illegible]ndarra	b	[illegible]	[illegible]	0
C'mden H	g	[illegible]	[illegible]	0
C.St.Geo	b	[illegible]	[illegible]	0
C[illegible]oar	b	[illegible]	[illegible]	0
Casino	c	[illegible]	[illegible]	[illegible]
Cassilis	o	[illegible]	[illegible]	0
Clarence	b	82	62	0·02
C'nd'b'lin	b	99	53	0·06
Cooma	c	87	55	0·45
Coonab'n	c	85	52	0
Cowra	g	96	71	0
Deniliq'n	b	99	73	0
Dubbo	b	92	66	0
Eden	r	78	60	0·13
Euston	b	100	58	0
Forbes	b	—	56	0·12
Gl'n Inn's	b	84	51	0
Goulburn	b	90	55	0·15
Grafton	b	—	64	0
Gulgong	c	85	58	0
Gunned'h	b	89	63	0
Hay	b	97	53	0
Inverell	b	82	53	0
Kiandra	f	82	50	0·07
Lismore	r	78	64	0·23
Maitland	b	87	61	0
Marsdens	b	91	69	0·32
Menindie	b	95	73	0
Molong	b	91	61	0
M'r'ng'r'll	b	80	65	0·37
Moree	b	89	60	0
Moruya	r	74	59	0·39
Moss Vale	b	80	58	0·11
Mt. Hope	b	99	—	0·13
M.Vict'ria	c	86	53	0·07
Mudgee	c	89	57	0
M'rr'mb'h	b	90	59	0·25
M'r'r'ndi	b	80	61	0
Mus'br'k	g	95	56	0
Narrabri	b	87	74	0
Newcastle	b	79	65	0
Orange	o	79	56	0
Picton	o	83	59	0·03
P. M'q'rie	b	82	58	0
P. St'ph'n	b	80	56	0
Q'nbeyan	c	83	63	0·90
Quirindi	b	85	60	0
Singleton	b	80	61	0
SYDNEY	g	77	65	0
Tamw'rth	b	82	51	0
Taralga	g	80	58	0·07
Taree	b	84	62	0
T'nt'rfield	b	73	57	0
Wagga	b	96	62	1·40
Walcha	o	73	45	0
Walgett	b	92	65	0
Warrah	b	86	60	0
W'ntw'rth	b	95	60	0
W'll'ng ng	c	78	64	0
Young	b	95	61	0·10

LATITUDE 33° [illegible]

Average Annual Rainfall for 27 years ... 49·365
Average for 28 years from Jan. 1st to NOV. 30 47·226
Total Rainfall from January 1st to DEC. 17 50·213
Barometers corrected to 32° Fah. and Mean Sea Level

If it is CALM, the symbol is used without the arrow
Smooth sea.
Heavy sea
Very heavy sea.



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Hillee Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally more or less cloudy and unsettled, with light southerly winds, fallen barometers, and smooth to moderate sea. (Rough sea off Gascoyne River). Extremes of barometers and temperature: Perth, 30·05; Cossack, 29·64; Ashburton 91·; and Esperance Bay, 69·.

South Australia.—Generally fine and warm, with light N. to E. winds, fallen barometers, and smooth to moderate sea. Extremes of barometers and temperature: M'Donnell Bay, 30·07 and 61·; Eucla, 29·86, and Adelaide, 84·. In Northern Territory: Daly Waters, 29·88 and 79·; Port Darwin, 29·63 and 83·; rainfall, 0·95 inches.

Victoria.—Generally fine, with light north to east winds, risen barometers, and moderate sea. Squally at Wilson's Promontory. Extremes of barometers and temperature: Lakes' Entrance, 30·26; Ballarat, 30·00 and 72·; Hamilton, 61·.

Tasmania.—Generally fine, with light scattered clouds, light N. to E. winds, risen barometers, and moderate sea. Extremes of barometers and temperature: Falmouth, 30·31 and 58·; Circular Heads, 30·22 and 64·.

New Zealand.—Calm and fine in extreme north, cloudy, and strong N.W. wind at Wellington. Showery and very strong W. wind at Bluff. Barometers: Russell, 30·2; Wellington, 29·8; and Bluff, 29·7.

New South Wales.—Generally fine, with light N.E. to S.E. winds, almost steady barometers, and smooth sea. Cloudy in places in coast districts, and raining at Moruya, Eden, Bodalla, and Lismore. Rain has fallen at places in the Eastern division; heaviest in south parts, near the range. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·29; Hay, 30·08; Bourke, 83·; Mount Victoria and Cooma, 59·. Reading of the standard barometer at Sydney, corrected to 32· Fahr., and mean sea level, at 9 a.m., 30·195. Extra stations: Barmedman, 0·45 inch rain, fine weather; Bega, 0·42 inch rain, and still raining; Lake Cudgellico, max. 84·, min. 62·, fine and warm. For further particulars see map.

Queensland.—Generally fine, with S.E. winds, fallen barometers, and moderate sea. Blowing a gale, with very high sea, off Cape Moreton. Rainfall: Cooktown, 0·30, Brisbane, 0·02 inch. Extremes of barometers and temperature: Cooktown, 30·01 and 84·; Cape Moreton, 29·91 and 69·.

3 P.M. OBSERVATIONS.

Victoria.—Portland, E.N.E., 23, fine, smooth sea, temperature 69·; Cape Otway, E., 34, fine, smooth sea, temperature 63·; Melbourne, S.S.E., 13, fine, temperature 80·; Cape Schanck, E., 13, fine but cloudy, smooth sea, temperature 69·; Wilson's Promontory, N.E., 31, squally, rough sea, temperature 65·; Lakes' Entrance, E., 28, fine, temperature, 70·.

New South Wales.—Menindie, calm, threatening, temperature 88·; Wentworth, S.S.W., fine but cloudy, temperature 83·; Deniliquin, N.E., fine and warm, temperature 88·; Eden, E.S.E., 28, stormy, smooth sea, temperature 65·; Moruya, E., 28, raining, smooth sea, temperature 64·; Cape St. George, S., 12, cloudy, smooth sea, temperature 72·; Sydney, E., 12, fine and clear, smooth sea, temperature 73·; Newcastle, S.E., 14, fine, smooth sea, temperature 72·; Port Macquarie, S.S.E. [illegible] sea, temperature 81·; Walgett, S.E., [illegible]; [illegible] N.E., 14, fine, temperature 77·; Goulburn, E., 14, overcast, temperature 70·.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 11 feet. Barwon: At Mogil Mogil, 11 feet; at Walgett, 21 feet. Namoi: At Walgett, 8 feet. Culgoa: At Goodooga, low. Darling: At Brewarrina, 14 feet 6 inches; at Bourke, 18 feet 4 inches; at Louth, [illegible] feet [illegible]; at Tilpa, 30 feet 2 inches; at Wilcannia, [illegible] feet [illegible] inches; at Menindie, 27 feet 4 inches; at Pooncarie, 23 feet 8 inches; at Wentworth, 16 feet 4 inches. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 7 feet 1 inch; at Hay, 9 feet 2 inches; at Balranald, 6 feet 9 inches. Murray: At Albury, 3 feet 8 inches; at Euston, 12 feet.

ASTRONOMICAL MEMORANDA FOR DECEMBER 18.

Sun rises at 4.46, sets at 7.7; Moon, 11.24 p.m.; Mercury, 3.35 a.m., 5.24 p.m.; Venus, 4.59 a.m., 7.22 p.m.; Mars, 6.57 a.m., 9.10 p.m.; Jupiter, 1.35 a.m., 2.35 p.m.; Saturn, 8.42 p.m., 6.42 a.m. Full Moon, 11th; new Moon, 25th.

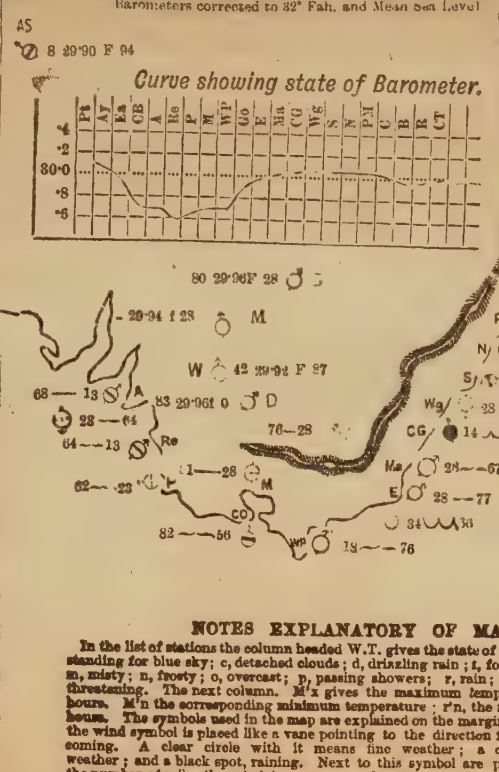
High water at Fort Denison, 12.48 a.m., 1.13 p.m.

Stations	wt	Mx	mn	r'in
Albury	c	93	69	0
Armidale	b	69	53	0
Balranald	b	108	69	0
Bathurst	b	76	50	0
Bend'm'r	b	72	50	0
Bodalla ..	b	75	60	0·51
Bourke ..	b	97	68	0
Br'w rrina	b	97	54	0
Bundarra	b	79	56	0
C'md'n H	c	76	68	0·24
C. St. Geo	r	78	63	0·15
Carcoar..	b	73	58	0
Casino ..	b	79	53	0·23
Cassilis ..	o	78	62	0
Clarence	c	81	67	0
C'nd'b'lin	b	90	51	0
Cooma ..	b	77	54	0
Coonab'n	b	83	51	0
Cowra ..	b	91	65	0
Deniliq'n	b	103	68	0
Dubbo ..	b	85	59	0
Eden	b	75	59	0·09
Euston ..	b	104	71	0
Forbes ..	b	—	53	0
Gl'n Inn's	b	76	51	0
Goul'burn	b	72	51	0
Grafton ..	h	—	63	0
Gulgong	b	80	60	0
Gunned'h	b	83	60	0
Hay	b	98	71	0
Inverell..	b	84	59	0
Kiandra	b	49	46	0·11
Lismore	b	78	64	0·10
Maitland	u	83	67	0
Marsdens	b	86	67	0
Menindie	b	98	76	0
Molong ..	b	83	54	0
M'r'ng'r'll	b	83	62	0
Moree ..	b	88	60	0
Moruya..	b	71	60	1·35
Moss Vale	u	74	57	0
Mt. Hope	b	95	—	0
M.Vict'ria	b	72	48	0
Mudgee	b	84	52	0
M'rr'mb'h	b	80	57	0
M'rr'ndi	c	76	59	0
Mus'br'k	b	88	51	0
Narrabri	b	89	63	0
Newcastle	b	76	65	0·05
Orange ..	b	75	52	0
Picton ..	r	75	59	0·10
P. M'q'rie	b	78	65	0·07
P. St'ph'n	c	81	61	0
Q'nbeyan	b	75	60	0
Quirindi	b	88	58	0
Singleton	b	83	61	0
Sydney ..	b	75	66	0·03
Tamw'rth	b	—	—	0
Taralga ..	b	73	54	0
Taree	b	83	65	0·14
T'nt'rfield	c	72	54	0
Wagga ..	b	84	63	0
Walcha ..	h	70	45	0
Walgett..	b	93	65	0
Warrah ..	b	82	54	0
W'nw'rth	b	99	74	0
Wil'ng ng	c	77	65	0·27
Young ..	b	85	58	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m 50·81s. E

Average Annual Rainfall for 27 years..... 46·365
Average for 28 years from Jan. 1st to NOV. 30 47·226
Total Rainfall from January 1st to DEC. 18 39·245
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.



H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:— Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Kobe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the south coast, gloomy and threatening, with light N.W. to S.W. winds, risen barometers, and moderate sea. Esperance Bay: Rainfall, 0·01 inch.

South Australia.—Cloudy and threatening, with light rain south of Quorn, light S.W. and N.E. winds, fallen barometers and moderate sea. Rain fallen South of Port Augusta, but partial inland. Clarendon, 0·37: Port Wakefield, 0·20; Port Lincoln, 0·16; and Wallaroo, 0·14. Extremes of barometers and temperature on the coast: Port Augusta, 30·16; M'Donnell Bay, 29·59 and 60°; and Adelaide, 68°.

Victoria.—Generally more or less cloudy, with fresh northerly winds, very rapid fall in barometers since yesterday, and moderate to rough sea. Squally and hot wind blowing on the coast. Extremes of barometers and temperature: Horsham, 30·08; Cape Otway, 29·86; Echuca, 83°; and Portland, 62°.

Tasmania.—Generally cloudy and unsettled, with strong N. to E. winds, fallen barometers, and moderate to rough sea. Misty rain at Falmouth. Extremes of barometers and temperature: Falmouth, 29·70 and 62°; Southport, 29·54; and Hobart, 72°.

New Zealand.—Generally fine, with barometers at 30·1. On North Island, S.E. wind; on South Island, S.W. wind. Strong wind in squalls and rough sea on the N.E. coast. Squally, with hail, over central parts in night.

New South Wales.—Generally fine and cool, with fresh N.E. to S.E. winds, fallen barometers, and moderate to rough sea. Cloudy in places on and near the coast; showery at Cape St. George, and drizzling at Picton. Rain has fallen at a few places in the Eastern divisions of the colony; heaviest at Moruya. Extremes of barometers and temperature at 9 a.m.: Walgett, 30·07; Gabo Island, 29·92; Wentworth, 87°; and Armidale, 62°. Reading of the standard barometer at Sydney, corrected to 32° Fahr., and mean sea level, at 9 a.m., 30·047. Extra stations: Camden, rainfall 0·20 inch, and fine but cloudy weather; Lake Cudgellico, max. 80°, min. 69°, and fine. For further particulars see map.

Queensland.—Generally fine, with S.E. winds and fallen barometers; moderate sea in north, and rough in south. Rainfall: Cooktown, 0·24, and Cape Moreton, 0·15. Extremes of barometers and temperature: Cooktown, 29·99 and 83°; Cape Moreton, 29·89 and 70°.

3 P.M. OBSERVATIONS.

Victoria.—No telegrams.

New South Wales.—Wentworth, S.W., 35, cloudy, showery, temperature 78°; Deniliquin, N., 30, fine, hot, temperature 91°; Eden, N.E., 40, fine, moderate sea, temperature 72°; Moruya, N.E., 42, cloudy, moderate sea, temperature 60°; Cape St. George, N., 40, fine, moderate sea, temperature 70°; Sydney, N.E., 20, fine, moderate sea, temperature 71°; Newcastle, E., 10, fine, moderate sea, temperature 70°; Port Macquarie, E.S.E., cloudy, heavy sea, temperature 77°; Clarence River, S.E., 20, fine, heavy sea, temperature 80°; Walgett, N.E., fine, temperature 83°; Dubbo, calm, fine, temperature 78°; Goulburn, W., 10, temperature 68°.

(Hot northerly winds in Victoria and extending into New South Wales.)

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 10 feet. Barwon: At Mogil Mogil, 9 feet; at Walgett, 20 feet 6 inches. Namoi: At Walgett, 10 feet. Culgoa: At Goodooga, low. Darling: At Brewarrina, 14 feet 8 inches; at Bourke, 18 feet 6 inches; at Louth, 18 feet 5 inches; at Tilpa, 30 feet; at Wilcannia, 33 feet; at Menindie, 27 feet 4 inches; at Pooncarie, 23 feet 9 inches; at Wentworth, 16 feet 4 inches. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 6 feet 8 inches; at Hay, 9 feet 9 inches; at Balranald, 7 feet. Murray: At Albury, 4 feet; at Euston, 11 feet 10 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 20.

Sun rises at 4.47, sets at 7.9; Moon, 1.12 a.m., 1.32 p.m.; Mercury, 3.31 a.m., 5.23 p.m.; Venus, 5.1 a.m., 7.26 p.m.; Mars, 6.56 a.m., 9.8 p.m.; Jupiter, 1.28 a.m., 2.29 p.m.; Saturn, 8.34 p.m., 6.34 a.m. Full Moon, 11th; new Moon, 25th.

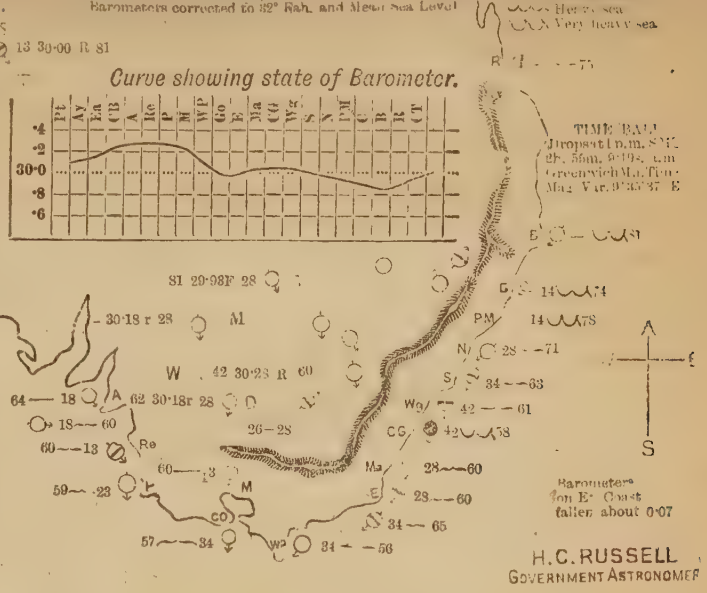
High water at Fort Denison, 2.50 a.m., 3.26 p.m.

SYDNEY OBSERVATORY

LATITUDE 33° 51′ 41″ S LONGITUDE 9h. 4m. 50·9s. E.

Average Annual Rainfall for 27 years..... 49·865
Average for 28 years from Jan. 1st to NOV. 30 47·926
Total Rainfall from January 1st to DEC. 20 39·245
Barometers corrected to 32° Fah. and Mean Sea Level

Stations	wt	Mx	mn	R'in
Albury	b	91	54	0·42
Armidale	b	86	51	0
Balranald	b	86	54	0·14
Bathurst	b	89	55	0
Bend'm'r	b	86	55	
Bodalla	g	87	55	0·09
Bourke	b	103	75	0
Br'w rrina	b	105	57	0
Bundarra	b	82	59	0
C'md'n H	c	81	61	0
C. St. Geo	r	75	55	0·03
Carcoar	b	82	63	0
Casino	b	83	60	0
Cassilis	b	86	66	0
Clarence	c	85	65	0
C'nd'b'lin	b	98	51	0·31
Cooma	c	91	46	0·44
Coonab'n	b	90	55	0
Cowra	b	100	09	0
Deniliq'n	b	102	48	0·03
Dubbo	b	95	64	0
Eden	u	80	56	0·35
Euston	b	86	47	0·23
Forbes	b	—	63	0·20
Gl'n Inn's	b	93	55	0
Gou burn	g	94	55	0
Grafton	g	—	66	0
Gulgong	b	88	53	0
Gunned'h	b	92	67	0
Hay	b	87	52	0·17
Inverell	b	88	57	0
Kiandra	b	78	44	0·65
Lismore	b	83	63	0
Maitland	b	91	61	0
Marsdens	b	62	67	0·19
Menindie	b	86	61	0·22
Molong	b	91	62	0·07
M'r'ng'r'll	b	92	63	0·04
Moree	b	92	65	0
Moruya	u	74	55	0·02
Moss Vale	r	82	55	0
Mt. Hope	b	96	—	0·48
M. Vict'ria	c	90	52	0
Mudgee	b	91	56	0
M'rr'mb'h	b	89	64	0
M'rr'r'ndi	b	84	61	0
Mus'lbr'k	b	101	57	0
Narrabri	b	103	61	0
Newcastle	b	79	62	0
Orange	b	83	60	0
Picton	o	82	62	0
P. M'q'rie	h	85	58	0
P. St'ph'n	b	82	58	0
Q'nbeyan	g	84	63	0·33
Quirindi	b	88	62	0
Singleton	b	90	66	0
SYDNEY	o	78	63	0
Tamw'rth	–	—	—	–
Taralga	u	90	56	0
Taree	b	85	62	0
T'nt'rfield	b	80	71	0
Wagga	b	93	58	0
Walcha	b	79	50	0
Walgett	b	101	67	0
Warrah	b	93	60	0
W'ntw'rth	b	82	51	0
W'll'ng'ng	c	76	68	0
Young	b	92	61	0



H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:– Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along westwards; northerly winds preceding them, and southerly following.

Western Australia.—On the south coast fine, with N.E. to E. winds, risen barometers, and smooth to moderate sea. Albany: Barometer, 30·03; Esperance Bay, 30·18; and temperature 65 degrees.

South Australia.—Generally fine and cool inland; scattered clouds on and near the coast; overcast and raining north of Peake; light to fresh S.W. to S.E. and E. winds, risen barometers, and moderate sea. Light rain has fallen south of Port Augusta, but scattered. Greatest at Bordertown and Lucindale, 0·27 inch; and Crafer's, 0·23. Extremes of barometers and temperature on the coast: Robe, 30·25 and 60°; Streaky Bay, 30·12; and Eucla, 65°. In Northern Territory: Daly Waters, 29·79 and 77°; Port Darwin, 29·56 and 85°, 0·86, and 2·55 inches rain respectively.

Victoria.—Generally fine, but cloudy, with fresh S.E. to S.W. winds, rising barometers, and moderate sea. Rainfall: Cape Schanck, 1·05; Portland, 0·60; Ballarat, 0·56; Wilson's Promontory, 0·50; and other stations lesser quantities. Extremes of barometers and temperature: Horsham, 30·24 and 68°; Echuca, 30·06; and Omeo, 53°.

Tasmania.—Generally cloudy and unsettled, with fresh S.E. to S.W. winds, rising barometers, and moderate to rough sea. Rainfall: Falmouth, 0·57; Circular Heads, 0·06; and Low Heads, 0·01. Hailstorms at south ports. Extremes of barometers and temperature: Circular Heads, 30·10; Falmouth, 29·99 and 58°; Southport, 46°.

New Zealand.—Generally fine, with S.E. to E. winds, and barometers at 30·4. On the N.E. coast passing showers, strong wind in squalls, rough sea.

Queensland.—Fine, with S.W. to W. winds, and rough sea in south parts; overcast and showery, with S.E. winds and calms, and moderate sea in north. Rainfall: Cooktown, 0·75; and Townsville, 0·09 inch. Extremes of barometers and temperature: Cape Moreton, 29·75 and 70°; Cooktown, 29·97 and 83°.

New South Wales.—Fine and clear west of the range, and gloomy along the coast, with southerly and easterly winds, rising barometers, and moderate to rough sea. Showers of light misty rain falling in places on the coast. During the last 48 hours light rain has fallen along the Victorian border; heaviest on the range. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·28; Port Macquarie, 29·87; Walgett, 29·85; and Cooma, 47°. Reading of the standard barometer at Sydney, corrected to 32° Fahr., and mean sea level, at 9 a.m., 29·990. Extra stations: Bega, 0·43 inch rain, thunderstorm from W. Lake Cudgellico, max. 75°, min. 61°, fine and cool. For further particulars see map.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 28, fine, smooth sea, temperature 62°; Cape Otway, S.S.W., 34, fine, moderate sea, temperature 59°; Melbourne, S., 14, fine, temperature 61°; Cape Schanck, S., 13, fine and misty, moderate sea, temperature 63°; Wilson's Promontory, S.W., 23, fine, squally, moderate sea, temperature 59°; Lakes' Entrance, S.W., 28, cloudy and squally, temperature 64°.

New South Wales.—Menindie, S.W., fine and cool, temperature 75°; Wentworth, S., 14, fine and clear, temperature 77°; Deniliquin, calm, fine and cool, temperature 74°; Eden, S.W., 14, smooth sea, temperature 66°; Cape St. George, S., 42, showers and squally, rough sea, temperature 64°; Sydney, S., 34, overcast and stormy, moderate sea, temperature 62°; Newcastle, S.S.W., 28, cloudy, sea rising, temperature 68°; Port Macquarie, S. 42, fine and hazy, heavy sea, temperature 82°; Clarence River, S., 28, fine, heavy sea, temperature 79°; Dubbo, S.W., fine, temperature 78°; Goulburn, E., 14, dull, temperature 68°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 9 feet. Barwon: At Mogil Mogil, 8 feet; at Walgett, 19 feet. Namoi: At Walgett, 9 feet. Culgoa: At Goodooga, 2 feet. Darling: At Brewarrina, 15 feet at Bourke, 18 feet 6 inches; at Louth, 17 feet 8 inches; at Tilpa, 27 feet 2 inches; at Wilcannia, 23 feet 4 inches; at Menindie, 27 feet 4 inches; at Pooncarie, 23 feet 9 inches; at Wentworth 16 feet 3 inches. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 6 feet; at Hay, 10 feet 6 inches; at Balranald, 8 feet 1 inch. Murray: At Albury, 4 feet; at Euston, 11 feet 7 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 21.

Sun rises at 4.47, sets at 7.9; Moon, 1.15 a.m., 2.35 p.m.; Mercury, 3.30 a.m., 5.22 p.m.; Venus, 5.3 a.m., 7.27 p.m.; Mars, 6.56 a.m., 9.6 p.m.; Jupiter, 1.24 a.m., 2.26 p.m.; Saturn, 3.29 p.m., 6.29 a.m. Full Moon, 11th; new Moon, 25th.

High water at Fort Denison, 4.5 a.m., 4.43 p.m.

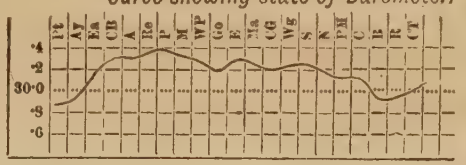
Stations	wt	Mx	Mn	Rain
Albury	b	78	51	0
Ayimdale	g	80	54	0
Balranald	b	92	49	0
Bathurst	b	89	50	0
Bend'm'r	b	89	55	0
Bodalla ..	b	72	44	0
Bourke ..		--	--	--
Brew'rrina	b	98	51	0
Bundarra	b	84	63	0
C'mdn H	c	78	62	0·54
C. St. Geo	r	75	53	0
Carcoar ..	b	82	55	0
Casino ..	c	85	64	0·09
Cassilis ..	o	85	58	0
Clarence	r	83	65	0
C'nd'b'lin	b	86	45	0
Cooma ..	g	63	36	0
Coonab'n	b	91	51	0
Cowra ..	b	90	68	0
Deniliq'n	b	80	45	0
Dubbo ..	b	89	55	0
Eden	b	80	60	0
Euston ..	b	81	51	0
Forbes ..	b	79	57	0
Gl'n Inn's	b	72	55	0
Gou burn	b	64	48	0
Grafton ..	b	90	66	0
Gulgong	c	91	60	0·57
Gunned'h	b	94	60	0
Hay	b	83	50	0
Inverell ..	b	90	63	0
Kiandra	b	72	28	0
Lismore	b	83	68	0·26
Maitland	b	82	60	0
Marsdens	b	80	70	0
Menindie	b	79	57	0
Molong ..	b	91	63	0
M'r'ng'r'll	b	78	56	0
Moree ..	b	96	67	0
Moruya ..	b	64	48	0
Moss Vale	b	72	45	0·01
Mt. Hope	b	87	--	0
M. Vict'ria	b	66	39	0
Mudgee	b	94	49	0·05
M'r'mb'h	b	75	55	01
M'r'r'ndi	c	81	60	0
Mus'br'k	b	62	55	0
Narrabri	b	95	65	0
Newcastle	c	76	59	0·12
Orange ..	b	80	46	0
Picton ..	b	62	52	0
P. M'q'rie	b	82	59	0·03
P. St'ph'n	c	82	56	0·08
Q'nbeyan	b	70	48	0
Quirindi	b	83	56	0
Singleton	b	80	66	0
Sydney ..	b	66	58	0
Tam'w'rth	b	90	59	0
Taralga ..	b	66	40	0
Taree	b	86	63	0·03
T'nt'rfield	b	84	45	0
Wagga ..	b	84	52	0
Walcha ..	u	84	46	0
Walgett..	b	96	64	0
Warrah ..	b	88	56	0
W'tw'rth	b	79	53	0
W'll'ng'g	b	66	55	0
Young ..	b	91	48	0

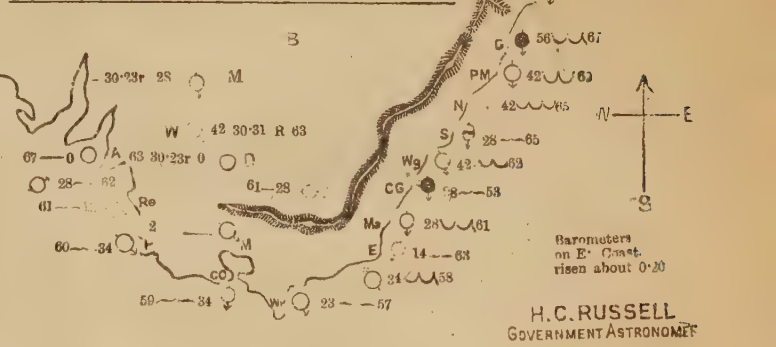
SYDNEY OBSERVATORY.

LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m 50·8s. E.

Average Annual Rainfall for 27 years..... ... 49·885
Average for 28 years from Jan. 1st to NOV. 30 37·226
Total Rainfall from January 1st to DEC. 21 39·245
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.





H. C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column. M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour: next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with N.E. to N.W. winds, fallen barometers, and smooth sea. Extremes of barometers and temperature: Esperance Bay, 30·07 and 66°; Cossack, 29.65; and Ashburton, 85°.

South Australia.—Generally fine and cool, with fresh E. to S.E. winds, risen barometers, and moderate sea; cloudy and unsettled north of Peake. Rainfall: Alice Springs 0·25 inch, and Tennant's Creek 3·36 inches. Extremes of barometers and temperature on the coast: M'Donnell Bay, 30·33 and 59°; Eucla, 30·07 and 71°. In Northern Territory: Port Darwin, 29·63 and 85°.

Victoria.—Generally fine, with fresh S. to E. winds, risen barometers, and moderate sea. Rainfall: A few points on the S.E. coast: Extremes of barometers and temperature: Cape Otway, 30·39; Echuca, 30·17; Horsham 66°; and Omeo, 50°.

Tasmania.—Generally fine, with fresh southerly winds, risen barometers, and moderate to rough sea. Passing showers at Hobart, 0·21 inch rain fallen. Extremes of barometers and temperature: Hobart, 30·37 and 51; Falmouth, 30·33 and 58°.

New Zealand.—Generally fine, with S.E. winds, and barometers at 30·3.

New South Wales.—Fine, clear, and cool west of the ranges, and cloudy, stormy, and unsettled in coast districts, with fresh S. to S.E. winds, rising barometers, and moderate to rough sea. Blowing a strong gale off the Clarence River. Showery at Clarence Heads and Cape St. George. Light rain has fallen in N.E. parts; heaviest at Gulgong and Camden Haven, where over half an inch fell during the night. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·31; Dubbo, 30·05; Inverell, 74°; and Ulandra, 44°. Reading of the standard barometer at Sydney, corrected to 32° Fahr., and mean sea level, at 9 a.m., 30·207. Extra station: Lake Cudgellico, max. 70°, min. 55°, fine and cool. For further particulars see map.

Queensland.—Generally more or less cloudy and unsettled, with S. to S.E. winds in south parts, and calms in north, risen barometers, and smooth sea in north, but rough in south. Rainfall: Cooktown, 0·75 inch. Extremes of barometers and temperature: Cooktown, 30·01 and 84°; Cape Moreton, 29·86 and 71°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 34, fine, moderate sea, temperature 64°; Cape Otway, S.S.E., 28, fine, smooth sea, temperature 63°; Melbourne, S.S.W., 18, fine, temperature 65°; Cape Schanck, E., 23, fine but cloudy, moderate sea, temperature 63°; Wilson's Promontory, S.W., 18, fine, smooth sea, temperature 64°.

New South Wales.—Menindie, S.W., fine and cool, temperature 74°; Wentworth, S.E., 28, fine, clear, and cool, temperature 65°; Deniliquin, calm, fine and cool, temperature 75°; Eden, S.W., 14, fine, smooth sea, temperature 65°; Moruya, S., 42, cloudy, rough sea, temperature 62°; Cape St. George, S., 42, cloudy, moderate sea, temperature 62°; Sydney, S., 23, overcast and dull, moderate sea, temperature 64°; Newcastle, S.E., 28, dull, moderate sea, temperature 64°; Port Macquarie, S., 56, fine, heavy sea, temperature 74°; Clarence River, S., strong gale, cloudy, heavy sea, temperature 74°; Walgett, S.E., fine, temperature 85°; Dubbo, E., 14, fine, temperature 74°; Goulburn, E., 14, fine, temperature 64°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 9 feet. Barwon: At Mogil Mogil, 7 feet 6 inches; at Walgett, 17 feet 6 inches. Namoi: At Walgett, 8 feet. Culgoa: At Goodooga, 2 feet 8 inches. Darling: At Brewarrina, 15 feet 16 inches; at Bourke, 18 feet 8 inches; at Louth, 17 feet 6 inches; at Tilps, 26 feet 6 inches; at Wilcannia, 32 feet 7 inches; at Menindie, 27 feet 10 inches; at Pooncarie, 23 feet 9 inches; at Wentworth, 16 feet. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 5 feet 6 inches; at Hay, 11 feet; at Balranald, 10 feet 7 inches. Murray: At Albury, 3 feet 9 inches; at Euston, 11 feet 6 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 22.

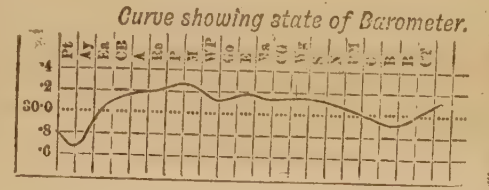
Sun rises at 4.48, sets at 7.10. Moon, 2.31 a.m., 3.37 p.m.; Mercury, 3.30 a.m., 5.24 p.m.; Venus, 5.5 a.m., 7.29 p.m.; Mars, 6.56 a.m., 9.3 p.m.; Jupiter, 1.21 a.m., 2.23 p.m.; Saturn, 8.5 p.m., 6.25 a.m. Full Moon, 11th; new Moon, 25th.

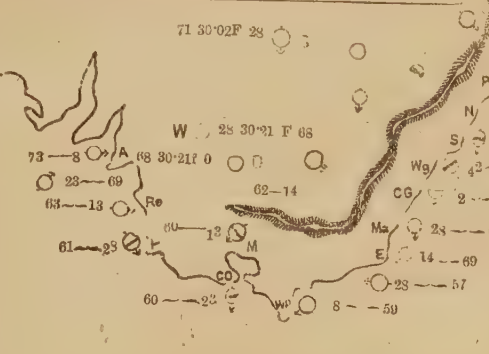
High water at Fort Denison, 5.18 a.m., 5.52 p.m.

Stations wt	M	m	r	in
Ihury	b	77	50	0
Armidale	g	81	50	0
Balranald	b	89	50	0
Bathurst	b	69	44	0
Bend'm'r	b	77	50	0
Bodalla	b	73	44	0
Bourke	b	95	63	0
Br'w rrina	b	93	46	0
Bundarra	b	78	46	0
C'md'n H	c	69	62	0
C. St. Geo	c	69	50	0·00
Carcoar	b	70	54	0
Casino	—	—	—	—
Cassilis	c	72	55	0
Clarence	c	80	64	0
C'nd'b'lin	b	81	41	0
Cooma	b	65	38	0
Coonab'n	c	89	46	0
Cowra	b	85	62	0
Deniliq'n	b	85	48	0
Dubbo	b	81	48	0
Eden	b	70	60	0
Euston	b	85	60	0
Forbes	b	75	55	0
Gl'n Inn's	b	87	46	0
Goulburn	b	70	40	0
Grafton	b	80	62	0
Gulgong	c	73	44	0
Gunned'h	b	85	55	0
Hay	b	82	56	0
Inverell	b	82	58	0
Kiandra	n	53	31	0
Lismore	c	78	65	0
Maitland	g	74	56	0·03
Marsdens	b	77	57	0
Menindie	b	82	61	0
Molong	b	76	47	0
M'r'ng'r'll	b	74	53	0
Moree	b	93	58	0
Moruya	b	66	43	0
Moss Vale	g	63	46	0
Mt. Hope	b	85	—	0
M. Vict'ria	g	59	37	0·06
Mudgee	b	78	45	0
M'rr'mb'h	b	74	52	0
M'rr'mdi	c	71	57	0
Mus'br'k	g	89	52	0
Narrabri	b	83	51	0
Newcastle	g	68	57	0·02
Orange	b	67	41	0
Picton	b	60	50	0
P. M'q'rie	c	74	58	0·01
P. St'ph'n	c	72	56	0
Q'nbeyan	b	65	47	0
Quirindi	b	87	56	0
Singleton	g	75	61	0
SYDNEY	g	67	57	0·01
Tamw'rth	—	—	—	—
Taralga	b	65	41	0
Taree	g	71	60	0·01
T'nt'rfield	b	86	59	0
Wagga	b	84	51	0
Walcha	u	63	42	0
Walgett	b	93	58	0
Warrah	b	74	52	0
W'ntw'rth	b	84	37	0
W'll'ng'ng	c	67	55	0
Young	b	76	44	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m. 50·9s. E.

Average Annual Rainfall for 27 years..... 40·903
Average for 28 years from Jan. 1st to NOV. 30 47·226
Total Rainfall from January 1st to DEC. 22 30·256
Barometers corrected to 32° Fah. and Mean Sea Level





H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour: next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along westwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with light variable winds, fallen barometers, and smooth sea. Extremes of barometers and temperature: Esperance Bay, 29·87 and 70°; Albany, 29.64; and Ashburton, 82°.

South Australia.—Generally fine, but more or less clouded north of Hawker, with light S.E. to N.E. winds, fallen barometers, and moderate sea; overcast in Northern Territory. Rainfall: Daly Waters, 0·73; Alice Springs 0·72; Tennant's Creek, 0·61; and Port Darwin, 0·12. Extremes of barometers and temperature on the coast: Robe, 30·18; M'Donnell Bay, 58°; Eucla, 30·05; and Adelaide, 73°. In Northern Territory: Daly Waters, 29·78 and 79°; Port Darwin, 29·71 and 86°.

Victoria.—Generally fine but cloudy, with fresh S.W. to S.E. winds, fallen barometers, and moderate sea. Extremes of barometers and temperature: Cape Schanck, 30·29; Ballarat, 30·16; Hamilton, 57°; and Horsham, 67°.

Tasmania.—Fine in north parts, light misty rain in south, with fresh southerly winds, fallen barometers, and moderate to rough sea. Rainfall: Southport, 0·14, and Hobart, 0·5 inch. Extremes of barometers and temperature: Southport, 30·29; Falmouth, 30·13, and 58°; Hobart, 53°.

New Zealand.—Generally fine, with S. to S.E. winds, and barometers, 30·1 in central parts to 30·2 in extreme north and south. At Gisborne, strong S.E. wind, with rough sea, and showery weather.

New South Wales.—Generally fine west of the range, cloudy and gloomy in coast districts, with fresh S. to E. winds, falling barometers, low temperature, and moderate sea. Blowing hard, with rough sea, along the north coast districts. Light frost at Kiandra. A few points rain have fallen at scattered places on and near the coast. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·21; Clarence, 29·98; Hay, 71°; Mount Victoria and Kiandra, 50°. Reading of the standard barometer at Sydney, corrected to 32° Fahr., and mean sea level, at 9 a.m., 30·134. Extra station: Lake Cudgellico, max. 68°, min. 57°, and fine. For further particulars see map.

Queensland.—Generally cloudy and unsettled, with S. and S.E. winds; in south parts, calm in north, risen barometers, and smooth to moderate sea. Heavy rain at Cooktown; 1·35 inch fallen. Extremes of barometers and temperature: Cooktown, 30·04 and 85°; Cape Moreton, 29·86 and 67°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 13, fine, smooth sea, temperature 66°; Cape Otway, S., 14, cloudy, smooth sea, temperature 65°; Melbourne, S.S.W., 13, fine, temperature 65°; Cape Schanck, S.E., 13, fine, but cloudy, smooth sea, temperature 64°; Wilson's Promontory, S.E., 28, fine, but cloudy, smooth sea, temperature 64°; Lakes Entrance, S.E., 13, fine, temperature 67°.

New South Wales.—Menindie, calm, fine, temperature 79°; Wentworth, E., fine, temperature 74°; Deniliquin, calm, fine, temperature 78; Eden, S.S.W., 14, fine, smooth sea, temperature 69°; Moruya, S.E., 28, fine, heavy sea, temperature 66°; Cape St. George, S., 42, fine, moderate sea, temperature 63°; Sydney, S.E., 3, passing showers, smooth sea, temperature 66°; Newcastle, S.E., 14, fine, sea moderating, temperature 66°; Port Macquarie, S., 28, fine, heavy sea, temperature 74°; Clarence River, S.E., 28, cloudy, heavy sea, but moderating, temperature 71°; Walgett, S.E., fine, temperature 80°; Dubbo, calm, fine, temperature 72°; Goulburn, S.E., 14, fine, temperature 67°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

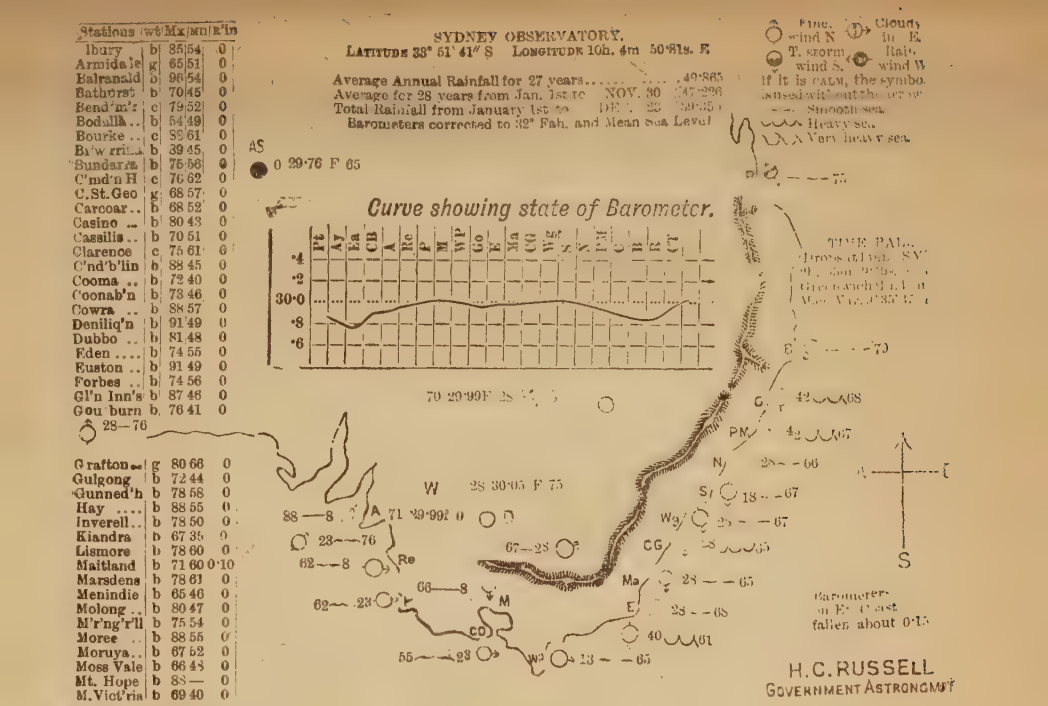
Macintyre: At Mungindi, 8 feet. Barwon: At Mogil Mogil, 7 feet; at Walgett, 16 feet 6 inches. Namoi: At Walgett, 7 feet. Culgoa: At Goodooga, 3 feet 4 inches. Darling: At Brewarrina, 15 feet 11 inches; at Bourke, 19 feet 6 inches; at Louth, 17 feet 6 inches; at Tilpa, 25 feet 9 inches; at Wilcannia, 32 feet 2 inches; at Menindie, 24 feet 4 inches; at Pooncarie, 23 feet 9 inches; at Wentworth, 15 feet 9 inches. Murrumbidgee: At Gundagai, 5 feet 6 inches; at Wagga, 5 feet 3 inches; at Hay, 11 feet 6 inches; at Balranald, 11 feet. Murray: At Albury, 3 feet 9 inches; at Euston, 11 feet 5 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 23.

Sun rises at 4.43, sets at 7.10; Moon, 3.14 a.m., 4.38 p.m.; Mercury, 8.30 a.m., 8.26 p.m.; Venus, 5.6 a.m., 7.30 p.m.; Mars, 6.56 a.m., 9.4 p.m.; Jupiter, 1.17 a.m., 2.20 p.m.; Saturn, 8.21 p.m., 6.21 a.m. Full Moon, 11th; new Moon, 25th.

High water at Fort Denison, 6.21 a.m., 6.50 p.m.

Stations	wt	Mx	mn	Rain
Albury	b	85	54	0
Armidale	g	65	51	0
Balranald	b	96	54	0
Bathurst	b	70	45	0
Bend'm'r	c	79	52	0
Bodalla	b	54	49	0
Bourke	c	98	61	0
Brw'rrina	b	39	45	0
Bundarra	b	75	56	0
C'md'n H	c	76	62	0
C.St.Geo	g	68	57	0
Carcoar	b	68	52	0
Casino	b	80	43	0
Cassilis	b	70	51	0
Clarence	c	75	61	0
C'nd'b'lin	b	88	45	0
Cooma	b	73	40	0
Coonab'n	b	73	46	0
Cowra	b	88	57	0
Deniliq'n	b	91	49	0
Dubbo	b	81	48	0
Eden	b	74	55	0
Euston	b	91	49	0
Forbes	b	74	56	0
Gl'n Inn's	b	87	46	0
Goulburn	b	76	41	0
Grafton	g	80	66	0
Gulgong	b	72	44	0
Gunned'h	b	78	58	0
Hay	b	88	55	0
Inverell	b	78	50	0
Kiandra	b	67	35	0
Lismore	b	78	60	0
Maitland	b	71	60	0·10
Marsdens	b	78	61	0
Menindie	b	65	46	0
Molong	b	80	47	0
M'r'ng'r'll	b	75	54	0
Moree	b	88	55	0
Moruya	b	67	52	0
Moss Vale	b	66	43	0
Mt. Hope	b	88	—	0
M.Vict'ria	b	69	40	0
Mudgee	b	80	44	0
M'rr'mb'h	b	74	49	0
M'rr'ndi	o	67	58	0
Mus'lbr'k	b	77	54	0
Narrabri	b	80	54	0
Newcastle	g	70	59	0·10
Orange	b	67	43	0
Picton	b	68	47	0
P. M'q'rie	c	74	57	0
P. St'ph'n	c	72	56	0·07
Q'nbeyan	b	69	51	0
Quirindi	g	79	57	0
Singleton	b	75	66	0
Sydney	b	67	56	0·10
Tamw'rth	—	—	—	—
Taralga	b	73	40	0
Taree	c	72	60	0·01
T'nt'rfield	b	86	62	0
Wagga	b	89	55	0
Walcha	u	89	44	0
Walgett	b	86	56	0
Warrah	b	68	55	0
W'ntw'rth	b	91	62	0
W'll'ng'ng	b	75	58	0
Young	b	74	48	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:- Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the south coast fine, with light westerly winds and smooth sea. At Lakes Entrance threatening weather, rough sea; barometer, 29·70, and temperature 70°; rainfall at Albany, 0·01 inch.

South Australia.—Generally fine and warm, with light scattered clouds in places, light N. E. winds, fallen barometers, and moderate sea; cloudy and unsettled north of Hawker. Rainfall: Alice Springs 0·45; and Tennant's Creek, 0·16 inch. Extremes of barometers and temperature on the coast: Robe, 29·97: Eucla, 29·75; Adelaide, 88°; and M'Donnell Bay, 60. In Northern Territory: Daly Waters, 29·97 and 83°; Port Darwin, 29·73 and 86°.

Victoria.—Generally fine, with light S. to E. winds, fallen barometers, and moderate sea. Showers of misty rain at Lakes Entrance. Extremes of barometers and temperature: Cape Otway 30·09 and 55°; Echuca, 29·86 and 73°.

Tasmania.—Generally fine, but cloudy, with light S. to E. winds, fallen barometers, and moderate to rough sea. Rainfall: Hobart, 0·08, and Southport, 0·05 inch. Extremes of barometers and temperature: Southport, 30·13; Falmouth, 30·00 and 74°; Hobart, 55°.

New Zealand.—Generally fine, with S.E. winds, and barometers, at 30·2.

New South Wales.—Generally fine and cool, with fresh S. to E. winds, falling barometers, and moderate to heavy sea. Cloudy at a few scattered places, and light rain fallen on the coast. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·05; Clarence, 29.87; Hay, 76°; and Armidale, 55°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29.995. Extra stations: Lake Cudgellico, max. 86°, min. 60°, fine and clear; Gabo Island, rainfall, 0·04 inch. For further particulars see map.

Queensland.—Cloudy and unsettled in north, with light S.E. winds and calms, and smooth sea. Fine, with S. to S.W. winds, and moderate sea in south parts. Rainfall: Cooktown, 9·96 and still raining; Rockhampton, 0·36; and Townsville, 0·12 inch. Extremes of barometers and temperature: Cooktown, 29·97 and 85°; Cape Moreton, 29·77 and 64°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.E., 28, fine, smooth sea, temperature 66°; Cape Otway, S.E., 23, fine, smooth sea, temperature 65°; Melbourne, S.S.W., 18, fine, temperature 75°; Cape Schanck, S., 13, fine, but cloudy, smooth sea, temperature 64°; Wilson's Promontory, E.N.E., fine, smooth sea, temperature 73°; Lakes Entrance, S.E., 13, fine, but cloudy, temperature 68°.

New South Wales.—Wentworth, S.S.W., cloudy, temperature 76°; Deniliquin, calm, fine, temperature 96°; Eden, S.W., 8, fine, smooth sea, temperature 69°; Cape St. George, S.E., 24, fine, smooth sea, temperature 65°; Sydney, S.E., 12, fine smooth sea, temperature 67°; Newcastle, S.E., 28, fine, moderate sea, temperature 67°; Port Macquarie, S., 28, fine, sea moderating, temperature 74°; Clarence River, S., 42, fine, heavy sea, temperature 76°; Walgett, S.E., fine, temperature 79°; Dubbo, E., 14, fine, temperature 74°; Goulburn, E., 14, fine, temperature 68°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 7 feet. Barwon: At Mogil Mogil, 6 feet; at Walgett, 15 feet 4 inches. Namoi: At Walgett, 6 feet. Culgoa: At Goodooga, 4 feet. Darling: At Brewarrina, 16 feet 8 inches; at Bourke, 19 feet 8 inches; at Louth, 12 feet 9 inches; at Tilpa, 25 feet 2 inches; at Wilcannia, 30 feet; at Menindie, 27 feet 3 inches; at Pooncarie, 23 feet 9 inches; at Wentworth, 18 feet 6 inches. Murrumbidgee: At Gundagai, 6 feet; at Wagga, 4 feet 10 inches; at Hay, 11 feet 10 inches; at Balranald, 11 feet 2 inches. Murray: At Albury, 3 feet 11 inches; at Euston, 11 feet 4 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 24.

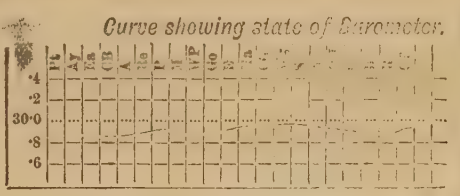
Sun rises at 4.49, sets at 7.11; Moon, 4.1 a.m., 5.37 p.m.; Mercury, 3.30 a.m., 5.28 p.m.; Venus, 5.8 a.m., 7.32 p.m.; Mars, 6.56 a.m., 9.3 p.m.; Jupiter, 1.14 a.m., 2.17 p.m.; Saturn, 5.15 p.m., 6.16 a.m. Full Moon, 11th; new Moon, 25th.

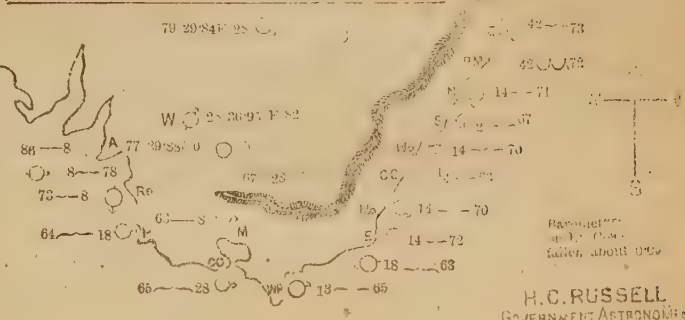
High water at Fort Denison, 7.15 a.m., 7.39 p.m.

Stations	wt	Mx	Mn	R'fall
Ibury		88	58	0
Armidale	b	93	52	0
Balranald	b	93	58	0
Bathurst	b	81	49	0
Bend'm'r	b	72	50	0
Bodalla ..	g	79	57	0·01
Bourke ..	b	90	66	0
Br'w rrina	–	—	—	0
Bundarra	c	76	68	0
C'mdn H	c	72	64	0
C. St. Geo	c	72	59	0
Carcoar ..	b	68	52	0
Casino ..	c	82	63	0
Cassilis ..	b	76	57	0
Clarence	c	77	61	0
C'nd'b'lin	b	88	51	0
Cooma ..	c	75	47	0
Coonab'n	b	79	54	0
Cowra ..	b	95	64	0
Deniliq'n	b	97	52	0
Dubbo ..	b	87	57	0
Eden	b	74	52	0
Euston ..	b	105	58	0
Forbes ..	b	79	62	0
Gl'n Inn's	b	89	53	0
Gou burn	b	82	48	0
Grafton ..	b	84	65	0
Gulgong	b	78	51	0
Gunned'h	b	82	62	0
Hay	b	94	56	0
Inverell ..	b	82	57	0
Kiandra	b	75	39	0
Lismore	c	79	67	0
Maitland	b	77	54	0
Marsdens	b	86	66	0
Menindie	b	86	69	0
Molong ..	b	87	54	0
M'r'ng'r'll	b	83	60	0
Moree ..	h	99	62	0
Moruya ..	b	72	57	0
Moss Vale	b	71	51	0·21
Mt. Hope	b	95	—	0
M. Vict'ria	b	79	49	0
Mudgee	b	85	60	0
M'rr'mb'h	b	82	58	0
M'rr'r'ndi	b	73	55	0
Mus'lbr'k	b	88	49	0
Narrabri	h	93	61	0
Newcastle	b	76	61	0
Orange ..	b	74	49	0
Picton ..	c	73	59	0
P. M'q'rie	b	76	60	0
P. St'ph'n	b	75	52	0
Q'beyan	b	73	57	0
Qu'rindi	b	82	57	0
Singleton	b	79	66	0
SYDNEY ..	c	71	63	0
Tamw'rth	b	85	57	0
Taralga ..	b	73	40	0
Taree ..	b	75	39	0·01
T'nt'rfield	c	87	67	0
Wagga ..	b	94	59	0
Walcha ..	b	84	48	0
Walgett ..	b	91	63	0
Warrah ..	b	78	54	0
Watw'rth	b	96	63	0
W'll'ng'ng	c	77	61	0
Young ..	h	81	52	0

LATITUDE 33° 51′ 47″ S LONGITUDE 10h. 4m. 50·9s. E

Average Annual Rainfall for 27 years ... inches.
Average for 28 years from Jan. 1st to NOV. 30 ... inches.
Total Rainfall from January 1st to ... 4 ... inches.
Barometer corrected to ... Feb. 20th ...





NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; w, windy. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming; A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers around the coast from Perth to Cooktown: Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Ke, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; J, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M., Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—No telegram.

South Australia.—Generally fine and warm, with scattered clouds north of Charlotte Waters, light S.E. and N.E. winds and calms, fallen barometers, and smooth sea. Rainfall: Tennant's Creek, 0·10; and Alice Springs, 0·04 inch. Extremes of barometers and temperature on the coast: M'Donnell Bay, 29·90 and 62.; Streaky Bay, 29·77; and Adelaide, 86°. Northern Territory: Daly Waters, 29·75 and 87°; Port Darwin, 29·69 and 86°.

Victoria.—Generally fine, with light easterly winds, fallen barometers, and smooth sea. No rain fallen. Extremes of barometers and temperature: Lakes Entrance, 29·99; Ballarat, 29·82; Cape Schanck, 68°; and Horsham, 72°.

Tasmania.—Generally fine, with light variable winds, fallen barometers, and moderate sea. Rainfall: Southport, 0·10; and Hobart, 0·01 inch. Extremes of barometers and temperature: Southport, 29·94 and 60°; Falmouth, 29·86; and Low Heads, 64°.

New Zealand.—No telegram.

New South Wales.—Generally fine and warm, with light S.E. to N.E. winds and calms, falling barometers, and moderate sea. Blowing hard in north coast districts, with rough sea off the Manning River. Light rain fallen in scattered places on the coast. Extremes of barometers and temperature at 9 a.m.: Wentworth, 29·95; Dubbo, 29.84; Hay, 82°; and Cooma, 57°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29.965. Extra stations: Lake Cargelligo, max. 86°, min. 65°, and fine. For further particulars see map.

New Zealand.—Generally cloudy and unsettled, with light variable winds and calms, fallen barometers, and smooth to moderate sea. Rainfall: Cooktown, 1·12; Townsville, 0·44; and Brisbane, 0·01 inch. Extremes of barometers and temperature: Cooktown, 29·91 and 83°; Cape Moreton, 29·78 and 70°.

3 P.M. OBSERVATIONS.

Victoria.—Cape Otway, E.N.E., 30, fine, smooth sea, temperature 68°; Melbourne, S.S.W., 12, fine, temperature 71°; Cape Schanck, S.E., 6, fine, smooth sea, temperature 66°; Wilson's Promontory, N.E., 6, fine, smooth sea, temperature 66°; Lakes Entrance, E., 24, fine, temperature 70°.

New South Wales.—Menindie, calm, fine, hot, temperature 85°; Deniliquin, calm, fine, hot, temperature 87°; Wentworth, N.N.E., fine, hot, temperature 81°; Moruya, N.E., 10, fine, sea moderate, temperature 71°; Cape St. George, N., 28, fine, moderate sea, temperature 69°; Sydney, N.E., 20, fine smooth sea; Newcastle, E., 10, fine, smooth sea, temperature 70°; Port Macquarie, S., 18, cloudy, heavy sea, temperature 73°; Walgett, calm, cloudy, temperature 89°; Dubbo, E., 14, fine, temperature 75°; Goulburn, N., 10, fine, temperature 70°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 7 feet. Barwon: At Mogil Mogil, 6 feet; at Walgett, 14 feet. Namoi: At Walgett, 5 feet. Culgoa: At Goodooga, 4 feet. Darling: At Brewarrina, 16 feet 4 inches; at Bourke, 10 feet 10 inches; at Louth, 18 feet; at Tilpa, 24 feet 10 inches; at Wilcannia, 31 feet 10 inches; at Menindie, 25 feet; at Pooncarie, 23 feet 8 inches; at Wentworth, 15 feet 2 inches. Murrumbidgee: At Gundagai, 5 feet; at Wagga, 4 feet 7 inches; at Hay, 11 feet 11 inches; at Balranald, 11 feet. Murray: At Albury, 3 feet 11 inches; at Euston, 11 feet 3 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 25.

Sun rises at 4.49, sets at 7.11; Moon, 4.50 a.m., 6.34 p.m.; Mercury, 3.29 a.m., 5.30 p.m.; Venus, 5.9 a.m., 7.33 p.m.; Mars, 6.56 a.m., 9.2 p.m.; Jupiter, 1.10 a.m., 2.14 p.m.; Saturn, 8.12 p.m., 6.12 a.m. Full Moon, 11th; new Moon, 25th.

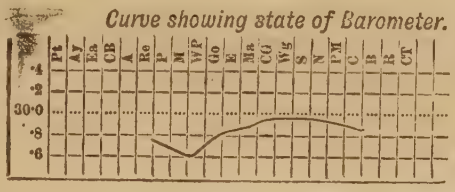
High water at Fort Denison, 8.2 a.m., 8.24 p.m.

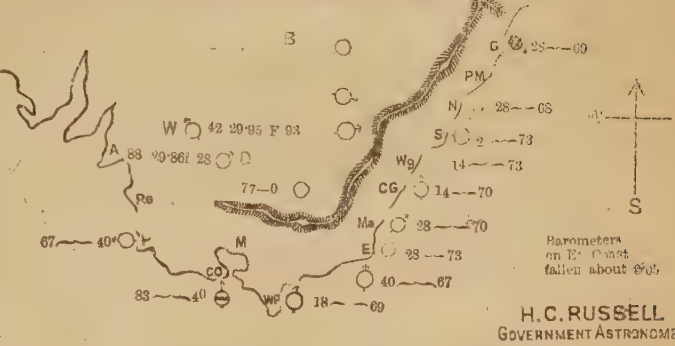
Stations	wt	M	m	R
Albury	b	97	65	0
Armidale	g	91	57	0·14
Balranald	b	111	62	0
Bathurst	c	85	—	—
Bend'm'r	b	83	56	0
Bodalla ..	–	—	—	–
Bourke ..	–	—	—	–
Br'w'rrina	–	—	—	–
Bundarra	b	78	63	0·35
C'md'n H	c	80	67	0·52
C. St. Geo	b	82	59	0
Carcoar ..	b	78	61	0
Casino ..	r	76	63	2·72
Cassilis ..	g	75	65	0
Clarence	r	74	68	0·87
C'nd'b'lin	b	96	51	0
Cooma ..	b	81	58	–
Coonab'n	b	83	53	–
Cowra ..	b	100	66	0·05
Deniliq'n	b	106	57	0
Dubbo ..	b	88	63	0
Eden	b	75	63	0
Euston ..	b	112	69	0
Forbes ..	b	86	57	0
Gl'n Inn's	c	80	56	0·40
Goulburn	b	87	55	0
Grafton ..	r	84	65	0·75
Gulgong	g	80	51	0
Gunned'h	–	—	—	–
Hay	b	101	74	0
Inverell ..	b	89	60	0
Kiandra	b	89	45	0·23
Lismore	r	74	69	0·85
Maitland	b	80	65	0·60
Marsdens	b	95	67	0
Menindie	b	97	75	0
Molong ..	g	86	54	0
M'r'ng'r'll	b	89	62	0
Moree ..	b	88	64	0·30
Moruya ..	b	73	67	0
Moss Vale	b	78	57	0
Mt. Hope	b	102	—	0
M. Vict'ria	c	82	48	0
Mudgee	g	87	55	0
M'rr'mb'h	b	88	57	0
M'rr'r'ndi	b	77	62	0·20
Mus'lbr'k	b	77	61	0·21
Narrabri	b	96	62	0·53
Newcastle	r	74	65	0·82
Orange ..	b	81	57	0
Picton ..	c	80	37	0
P. M'q'rie	–	—	—	–
P. St'ph'n	b	78	61	0
Q'nbeyan	b	80	59	0
Quirindi	b	84	64	0·21
Singleton	b	71	61	0
SYDNEY ..	b	75	63	0
Tamw'rth	–	—	—	–
Taralga ..	b	82	53	0
Taree ..	–	—	—	–
T'nt'rfield	g	78	41	0
Wagga ..	b	99	63	0
Walcha ..	u	70	51	0
Walgett ..	b	93	66	0
Warrah ..	b	69	71	0
W'ntw'rth	b	108	75	0
W'll'ng'ng	b	81	59	0
Young ..	b	94	58	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m 50·81s. E

Average Annual Rainfall for 27 years ..... 40·685
Average for 23 years from Jan. 1st to NOV. 30 47·996
Total Rainfall from January 1st to DEC. 27 50·350
Barometers corrected to 32° Fah. and Mean Sea Level

Curve showing state of Barometer.





Barometers on E. Coast fallen about 0·05

H.C. RUSSELL
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with tail means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle: PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Victoria.—Generally fine and warm, with light northerly winds, fallen barometers, and smooth sea; equally on the S. W. coast; fierce hot wind blowing at Capes Otway and Schanck. Extremes of barometers and temperature at 9 a.m.: Lakes Entrance, 30·00; Cape Otway, 29·54; Echuca, 87°; and Portland, 67°.

Tasmania.—Fine in N.E. parts, with light northerly winds and smooth sea. Extremes of barometers and temperature: Falmouth, 29·81 and 62°; Low Heads, 29·71 and 71.

South Australia.—Generally fine; cool, with scattered clouds.

New South Wales.—Generally fine and warm west of the range, cloudy and showery in north coast districts, with light easterly winds, fallen barometers, and smooth sea. Rain has fallen in N.E. parts; heaviest on the Clarence. Extremes of barometers and temperature at 9 a.m.: Wentworth, 29·950 and 93°; Clarence, 29·93; and Mount Victoria, 62°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29·94. Extra station: Lake Cudgellico, max. 85°, min. 63°, fine and warm. For further particulars see map.

Queensland.—Brisbane, S.E., showery, rain 0·08; Cape Moreton, S.E., cloudy, moderate sea; Rockhampton, temperature 74°, showery, rain 0·19; Townsville, barometer low, 29·48, calm, showery, smooth sea; Cooktown, 29·80, fine, moderate sea.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 6 feet 6 inches. Barwon: At Mogil Mogil, 6 feet; at Walgett, 11 feet 6 inches. Namoi: At Walgett, 2 feet 6 inches. Culgoa: At Goodooga, 3 feet 5 inches. Darling: At Brewarrina, 19 feet; at Bourke, 20 feet 5 inches; at Louth, 18 feet 8 inches; at Tilpa, 24 feet; at Wilcannia, 31 feet 7 inches; at Menindie, 27 feet 7 inches; at Pooncarie, 23 feet 10 inches; at Wentworth, 15 feet. Murrumbidgee: At Gundagai, 4 feet; at Wagga, 3 feet 9 inches; at Hay, 8 feet; at Balranald, 11 feet 1 inches. Murray: At Albury, 2 feet 6 inches; at Euston, 11 feet 2 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 28.

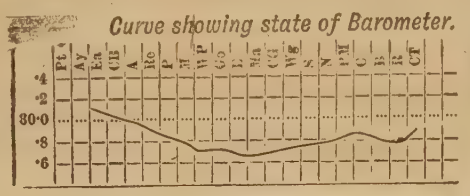
Sun rises at 4.50, sets at 7.12; Moon, 6.35 a.m., 8.15 p.m.; Mercury, 3.29 a.m., 5.34 p.m.; Venus, 5.12 a.m., 7.36 p.m.; Mars, 6.55 a.m., 9 p.m.; Jupiter, 1.3 a.m., 2.8 p.m.; Saturn, 8.4 p.m., 6.4 a.m. Full moon, 11th; new moon, 25th.

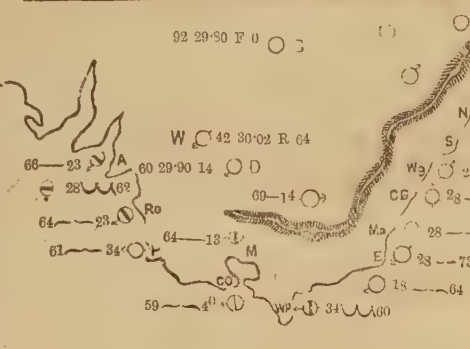
High water at Fort Denison, 9.26 a.m., 9.44 p.m.

Stations	wt	Mx	mn	R'in
Albury	b	97	65	0
Armidale	b	78	57	0
Balranald	b	111	53	0
Bathurst	b	87	56	0
Bend'm'r	b	87	54	0
Bodalla ..		—	—	—
Bourke ..	b	100	71	0
Br'w'rrina		—	—	—
Bundarra	b	88	58	0
C'md'n H	c	82	66	0
C.St.Geo	b	93	65	0
Carcoar..	b	85	65	0
Casino ..	c	77	60	0·30
Cassilis ..	b	81	63	0
Clarence	b	76	69	0·54
C'nd'b'lin	b	99	61	0
Cooma ..	b	96	65	0
Coonab'n	b	88	56	0
Cowra ..	b	101	69	0
Deniliq'n	b	105	51	0
Dubbo ..	b	94	64	0
Eden	b	75	63	0
Euston ..	b	105	50	0
Forbes ..	b	89	56	0
Gl'n Inn's	b	84	54	0
Goulburn	b	95	60	0
Grafton ..	b	74	61	0
Gulgong	b	82	49	0
Gunned'h	b	89	66	0·75
Hay	b	103	59	0
Inverell ..	b	89	59	0
Kiandra	b	87	45	0
Lismore	r	74	69	0·56
Maitland	b	82	62	0
Marsdens	b	93	75	0
Menindie	b	101	66	0
Molong ..	b	92	57	0
M'r'ng'r'll	b	91	73	0
Moree ..	b	85	65	0
Moruya ..	b	—	—	0
Moss Vale	b	80	61	0
Mt. Hope	b	100	—	0
M.Vict'ria	b	84	48	0
Mudgee	b	91	55	0
M'rr'mb'h	b	83	59	0
M'rr'r'ndi	b	80	61	0
Mus'lbr'k	b	92	59	0
Narrabri	b	99	76	0
Newcastle	b	76	65	0
Orange ..	b	82	57	0
Picton .	b	81	58	0
P. M'q'rie	b	82	62	0
P. St'ph'n	b	81	61	0
Q'nbeyan	b	82	64	0
Quirindi	b	86	62	0
Singleton	b	82	65	0
SYDNEY ..	b	78	66	0
Tamw'rth	b	87	53	0
Taralga ..	b	80	51	0
Taree ..	b	83	64	1·19
T'nt'rfield	c	78	60	0
Wagga ..	b	99	69	0
Walcha ..	c	75	51	0
Walgett ..	b	97	65	0
Warrah ..	b	87	59	0
W'ntw'rth	b	101	67	0
W'll'ng'ng	b	82	68	0
Young ..	b	94	62	0

SYDNEY OBSERVATORY.
LATITUDE 33° 51′ 41″ S LONGITUDE 10h. 4m 50·81s. E

Average Annual Rainfall for 27 years..... .. 49·865
Average for 28 years from Jan. 1st to NOV. 30 47·326
Total Rainfall from January 1st to DEC. 28 39·350
Barometers corrected to 32° Fah. and Mean Sea Level





Barometer on E. Coast fallen about 0·15

H. C. RUSSELL.
GOVERNMENT ASTRONOMER

NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds proceeding them, and southerly following.

South Australia.—Generally fine; clear and cool north of Burra, cloudy and gloomy over the rest of the colony, with light W. to S. winds, rising barometers, and smooth sea. Extremes of barometers and temperature on the coast: Eucla, 30·07; M'Donnell Bay, 29·80 and 61°; Adelaide, 66°. Rough sea off Cape Borda. In Northern Territory: Daly Waters, 29·80 and 90°; Port Darwin, 29·73 and 86°.

Victoria.—Generally cloudy and cool, with strong westerly winds, risen barometers, and moderate to rough sea; Rainfall: Lakes Entrance, 0·20; Portland, 0·07; and Cape Otway, 0·05 inch. Extremes of barometers and temperature: Melbourne, 29·84; Ballarat, 29·71; Cape Schanck, 68°; and Hamilton, 59°.

Tasmania.—Generally more or less cloudy and unsettled, with fresh N. to N.W. winds, low barometers and moderate sea. Rainfall: Low Heads, 0·14; Southport, 0·10; and Hobart, 0·07. Extremes of barometers and temperature: Low Heads, 29·60 and 59°; Southport, 29·60 and 64°.

New Zealand.—Generally fine, with S.E. to S.W. winds. Barometers: In extreme North and South, 30·1; at Wellington, 30·0.

New South Wales.—Generally fine and warm, cloudy in north-east, and showery at Lismore, with light N. to E. and S.E. winds, falling barometers, and smooth sea. Rain has fallen in north coast districts, heaviest at Taree. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·03; Eden, 29·64; Bourke, 92°, and Deniliquin, 60°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29·752. Extra station: Bodalla, max. 73°, min. 54°, and fine; Lake Cudgellico, max. 97°, min. 60°, and fine warm weather. For further particulars see map.

Queensland.—Generally cloudy and unsettled, with southerly winds, fallen barometers, and moderate sea. Passing showers at Townsville, 0·12 inch fallen; Cape Moreton, 0·60 inch rain. Extremes of barometers and temperature: Cooktown, 29·90 and 92°; Cape Moreton, 29·70 and 71°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, W., 42, squally, smooth sea, temperature 65°; Cape Otway, N.W., 42, squally, high sea, temperature 63°; Melbourne, W., 12, fine, barometer steady, temperature 75°; Cape Schanck, S.W., 12, cloudy, smooth sea, temperature 68°; Wilson's Promontory, W., 36, squally, rough sea, temperature 63°; Lakes' Entrance, W., 24, fine, temperature 73°.

New South Wales.—Menindie, S.W., 28, fine, warm, temperature 76°; Wentworth, S., 14, fine, clear, temperature 73°; Deniliquin, W., 14, fine, clear, temperature 84°; Eden, S.W., 14, fine, little sea, temperature 73°; Moruya, S.W., hazy, moderate sea temperature 67°; Cape St. George, S., 28, fine, smooth sea, temperature 74°; Sydney, N.E., 20, fine, moderate sea; Port Macquarie, N.E., 28, fine, smooth sea, temperature 84°; Clarence River, S., 20, fine, moderate sea, temperature 80°; Walgett, S.E., fine, hot, temperature 96°; Dubbo, S.W., fine, temperature 85°; Goulburn, N.W., fine, temperature 80°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

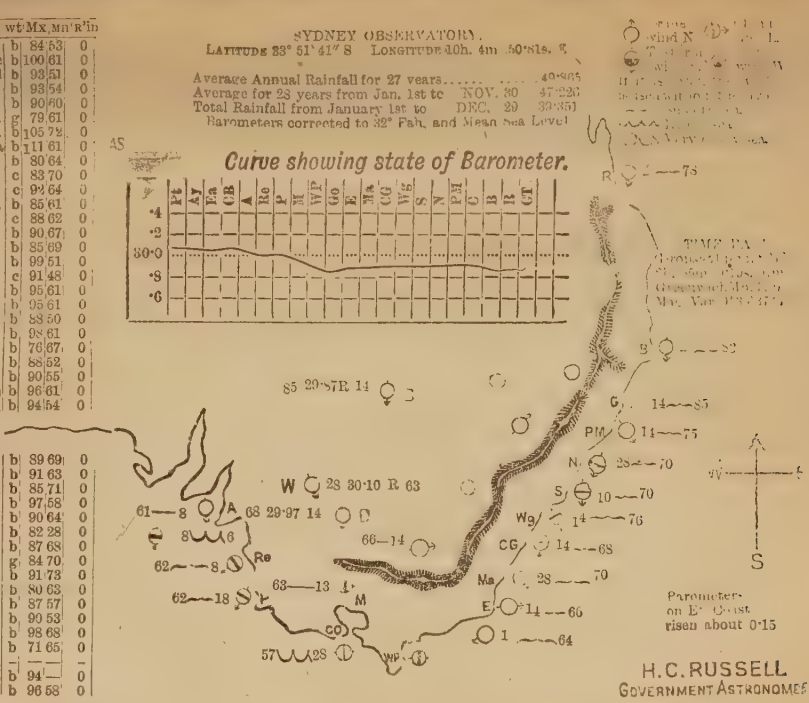
Macintyre: At Mungindi, 5 feet 6 inches. Barwon: At Mogil Mogil, 5 feet 9 inches; at Walgett, 10 feet 6 inches. Namoi: At Walgett, low. Culgoa: At Goodooga, 3 feet 2 inches. Darling: At Brewarrina, 13 feet 8 inches; at Bourke, 20 feet 1 inch; at Louth, 18 feet 9 inches; at Tilpa, 24 feet 2 inches; at Wilcannia, 29 feet 8 inches; at Menindie, 27 feet 8 inches; at Pooncarie, 23 feet 10 inches; at Wentworth, 15 feet. Murrumbidgee: At Gundagai, 3 feet 10 inches; at Wagga, 3 feet 6 inches; at Hay, 7 feet 5 inches; at Balranald, 11 feet 3 inches. Murray: At Albury, 3 feet; at Euston, 11 feet 2 inches.

ASTRONOMICAL MEMORANDA FOR DECEMBER 29.

Sun rises at 4.52, sets at 7.12; Moon, 8.23 a.m., 9.39 p.m.; Mercury, 3.30 a.m., 5.37 p.m.; Venus, 5.16 a.m., 7.39 p.m.; Mars, 6.55 a.m., 8.58 p.m.; Jupiter, 12.57 a.m., 2.1 p.m.; Saturn, 7.59 p.m., 5.55 a.m. Full moon, 11th; new moon, 25th.

High water at Fort Denison, 10.39 a.m., 10.56 p.m.

Stations	wt	Mx	Mn	R'in
Albury	b	84	53	0
Armidale	b	100	61	0
Balranald	b	93	51	0
Bathurst	b	93	54	0
Bend'm'r	b	90	60	0
Bodalla ..	g	79	61	0
Bourke ..	b	105	72	0
Br'w rrina	b	111	61	0
Bundarra	b	80	64	0
C'md'n H	c	83	70	0
C. St. Geo	c	92	64	0
Carcoar ..	b	85	61	0
Casino ..	c	88	62	0
Cassilis ..	b	90	67	0
Clarence	b	85	69	0
C'nd'b'lin	b	99	51	0
Cooma ..	c	91	48	0
Coonab'n	b	95	61	0
Cowra ..	b	95	61	0
Deniliq'n	b	88	50	0
Dubbo ..	b	98	61	0
Eden	b	76	67	0
Euston ..	b	88	52	0
Forbes ..	b	90	55	0
Gl'n Inn's	b	96	61	0
Goulburn	b	94	54	0
Grafton ..	b	89	69	0
Gulgong	b	91	63	0
Gunned'h	b	85	71	0
Hay	b	97	58	0
Inverell ..	b	90	64	0
Kiandra	b	82	28	0
Lismore	b	87	68	0
Maitland	g	84	70	0
Marsdens	b	91	73	0
Menindie	b	80	63	0
Molong ..	b	87	57	0
M'r'ng'r'll	b	90	53	0
Moree ..	b	98	68	0
Moruya ..	b	71	65	0
Moss Vale	–	—	—	–
Mt. Hope	b	94	—	0
M. Vict'ria	b	96	58	0
Mudgee	b	95	58	0
M'rr'mb'h	b	90	55	0
M'rr'r'ndi	b	86	67	0
Mus'lbr'k	b	103	62	0·02
Narrabri	b	96	54	0
Newcastle	g	81	66	0
Orange ..	b	86	54	0
Picton ..	u	93	64	0
P. M'q'rie	b	87	64	0
P. St'ph'n	c	87	65	0
Q'nbeyan	b	86	60	0
Quirindi	b	95	63	0
Singleton	g	95	65	0
SYDNEY ..	g	82	67	0
Tamw'rth	b	93	63	0
Taralga ..	b	90	50	0
Taree ..	g	89	69	0·01
T'nt'rfield	b	89	59	0
Wagga ..	b	93	56	0
Walcha ..	b	80	53	0
Walgett ..	b	101	71	0
Warrah ..	b	95	65	0
W'ntw'rth	b	87	55	0
W'll'ng'ng	b	82	66	0
Young ..	b	97	61	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., b standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:– Pt, Perth; Ay, Albany; Ea, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Go, Gabo; E, Eden; Ma, Moruya; CG Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; PM, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine in south parts, with light easterly winds, fallen barometers, and smooth sea. Extremes of barometers and temperature: Esperance Bay, 30·02 and 68°; Albany, 30·05; and Perth, 69°.

South Australia.—Generally fine, cool, and pleasant inland, scattered clouds on and near the coast, with light southerly winds and calms, rising barometers, and smooth sea. Extremes of barometers and temperature on the coast: Cape Borda, 30·06 and 61°; Farina, 29·92; and Eucla, 73° In Northern Territory: Daly Waters, 29·86 and 89°; Port Darwin, 29·75 and 87°.

Victoria.—Generally fine but cloudy, with strong westerly winds, rising barometers, and moderate sea. Rainfall: 0.05 at Southport. Extremes of barometers and temperature: Cape Otway, 30·01 and 57°; Echuca, 29·79; and Horsham, 73°

Tasmania.—Generally fine, with light westerly winds, rising barometers, and smooth sea. Extremes of barometers and temperature: Low Heads, 29·85; Falmouth, 29·72 and 66°; and Southport, 59°

New Zealand.—Cloudy and gloomy on North Island, fine in south; light N.W. winds; blowing hard from S.E. in extreme north parts. Barometers: Russell, 30·1; Wellington, 30·0; and Bluff, 29·8.

New South Wales.—Generally fine west of the range, cloudy and gloomy in coast districts, with light variable winds, rising barometers, and smooth sea. Light rain has fallen on the Hunter and Manning rivers. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·10 and 63°; Dubbo, 29·79; and Coonabarabran, 86°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29·914. Extra station: Lake Cudgellico, max. 83°, min. 60°, fine and warm. For further particulars see map.

Queensland.—Generally fine, with light southerly winds and calms, rising barometers, and smooth sea. Extremes of barometers and temperature: Rockhampton, 29·86; Townsville, 29·63 and 86°; Cape Moreton, 73°.

3 P.M. OBSERVATIONS.

Victoria.—Portland, S.W., 23, fine, smooth sea, temperature 65°; Cape Otway, W.S.W., 23, cloudy, rough sea, temperature 60°; Melbourne, S., 13, fine, temperature 66°; Cape Schanck, W.S.W., 8, misty, smooth sea, temperature 66°; Wilson's Promontory, W., 23, fine, squally, moderate sea, temperature 66°; Lakes Entrance, W., 18, fine but cloudy, temperature 69°.

New South Wales.—Menindie, S., 14, fine and clear, temperature 78°; Wentworth, W., 14, fine and clear, temperature 74°; Deniliquin, W., 14, fine and clear, temperature 83°; Eden, S.E., 14, fine, smooth sea, temperature 66°; Moruya, N.E., 14, gloomy, smooth sea, temperature 79°; Cape St. George, E., 28, fine, smooth sea, temperature 73°; Sydney, E.S.E., 13, overcast and dull, smooth sea, temperature 71°; Newcastle, S.W., 14, fine, moderate sea, temperature 73°; Port Macquarie, S.E., 28, fine, smooth sea, temperature 85°; Clarence River, S.E., 14, fine, smooth sea, temperature 81°; Dubbo, E., 14, fine, temperature 80°; Goulburn, N.E., 14, fine, temperature 78°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 5 feet. Barwon: At Mogil Mogil, 5 feet 6 inches; at Walgett, 9 feet. Namoi: At Walgett, low. Culgoa: At Goodooga, 3 feet. Darling: At Brewarrina, 13 feet 5 inches; at Bourke, 19 feet 8 inches; at Louth, 18 feet 9 inches; at Tilpa, 24 feet 6 inches; at Wilcannia, 29 feet; at Menindie, 23 feet 8 inches; at Pooncarie, 23 feet 10 inches; at Wentworth, 15 feet. Murrumbidgee: At Gundagai, 3 feet 6 inches; at Wagga, 3 feet 3 inches; at Hay, 6 feet; at Balranald, 11 feet 5 inches. Murray: At Albury, 2 feet 8 inches; at Euston, 11 feet 2 inches.

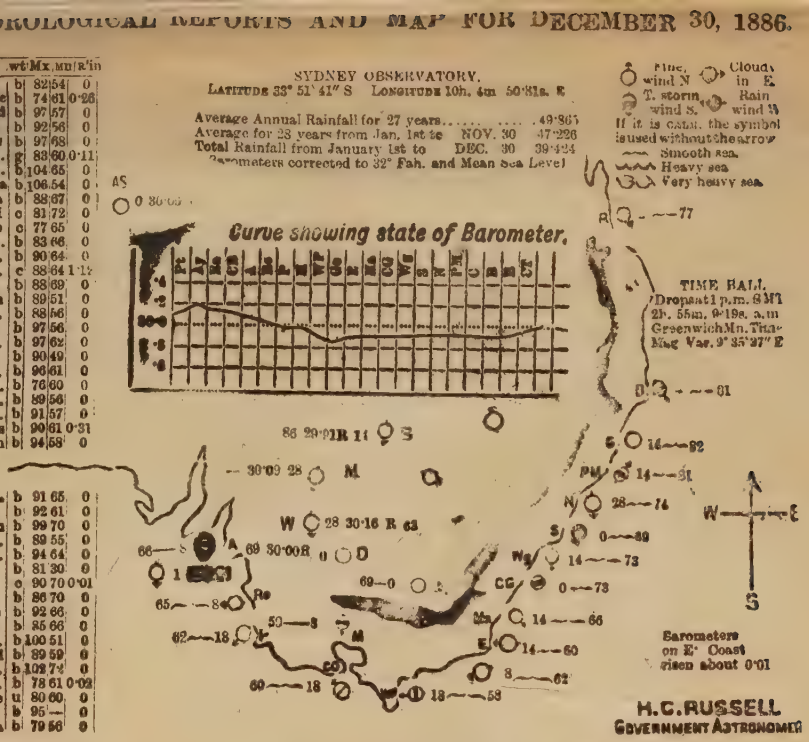
ASTRONOMICAL MEMORANDA FOR DECEMBER 30.

Sun rises at 4.53, sets at 7.13; Moon, 9.18 a.m., 10.14 p.m.; Mercury, 3.31 a.m., 5.39 p.m.; Venus, 5.18 a.m., 7.40 p.m.; Mars, 6.55 a.m., 8·56 p.m.; Jupiter, 12.53 a.m., 1.57 p.m.; Saturn, 7.51 p.m., 5.50 a.m. Full moon, 11th; new moon, 25th.

High water at Fort Denison, 11.24 a.m., 11.32 p.m.

METEOROLOGICAL REPORTS AND MAP FOR DECEMBER 30, 1886.

Stations	wt	Mx	mn	R'in
Albury	b	82	54	0
Armidale	b	74	61	0·26
Balranald	b	97	57	0
Bathurst	b	92	56	0
Bend'g's	b	97	68	0
Bodalla ..	g	83	60	0·11
Bourke ..	b	104	65	0
Br'w rina	b	106	54	0
Bundarra	b	88	67	0
C'mdn H	c	81	72	0
C. St. Geo	c	77	65	0
Carcoar ..	b	83	66	0
Casino ..	b	90	64	0
Cassilis ..	c	88	64	1·12
Clarence	b	89	69	0
C'nd'b'lin	b	89	51	0
Cooma ..	b	88	56	0
Coonab'a	b	97	56	0
Cowra ..	b	97	62	0
Deniliq'n	b	90	49	0
Dubbo ..	b	96	61	0
Eden	b	76	60	0
Euston ..	b	89	56	0
Forbes ..	b	91	57	0
Gl'n Inn's	b	90	61	0·31
Goulburn	b	94	58	0
Grafton ..	b	91	65	0
Gulgong	b	92	61	0
Gunned'h	b	99	70	0
Hay	b	89	55	0
Inverell ..	b	94	64	0
Kiandra	b	81	30	0
Lismore	c	90	70	0·01
Maitland	b	86	70	0
Marsdens	b	92	66	0
Menindie	b	85	66	0
Molong ..	b	100	51	0
M'r'ng'r'll	b	89	59	0
Moree ..	b	102	72	0
Moruya ..	b	78	61	0·02
Moss Vale	u	80	60	0
Mt. Hope	b	95	—	0
M. Vict'ria	b	79	56	0
Mudgee	c	95	61	0
M'rr'mb'h	b	88	61	0
M'rr'r'ndi	b	85	68	0
Mus'lbr'k	g	92	63	0·02
Narrabri	b	104	65	0
Newcastle	b	78	68	0
Orange ..	b	84	57	0
Picton ..	o	80	65	0
P. M'q'rie	c	84	56	0
P. St'ph'n	c	81	66	0
Q'nbeyan	u	81	63	0
Quirindi	b	91	66	0
Singleton	g	80	73	0
SYDNEY ..	g	76	67	0·07
Tamw'rth	b	100	62	0
Taralga ..	b	92	59	0
Taree ..	b	88	72	0·03
T'nt'rfield	b	90	63	0
Wagga ..	b	97	55	0
Walcha ..	b	93	55	0·02
Walgett ..	b	105	68	0
Warrah ..	b	93	64	0
W'ntw'rth	b	87	55	0
W'll'ng'ng	h	79	68	0
Yourg ..	b	95	57	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M'x gives the maximum temperature for previous 24 hours, M'n the corresponding minimum temperature; r'n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each coast station the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour; next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown:—Pt, Perth; Ay, Albany; Es, Eucla; CB, Cape Borda; A, Adelaide; Re, Robe; P, Portland; M, Melbourne; WP, Wilson's Promontory; Ge, Gabo; E, Eden; Ma, Moruya; C G Jervis Bay; Wg, Wollongong; S, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometer is given in figures at Albury, Deniliquin, Wentworth Menindie, Bourke, and Alice Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—Generally fine, with clouds in places, light S. to E. winds, risen barometers, and smooth sea. Extremes of barometers and temperature: Esperance Bay, 30·19 and 64°; Cossack, 29·73; and Ashburton, 92°.

South Australia.—Generally fine inland, cloudy and gloomy on and near the coast, with light S.E. to S.W. winds, risen barometers, and smooth sea. Extremes of barometers and temperature on the coast: Eucla, 30·15 and 71°; M'Donnell Bay, 30° and 65. In Northern Territory: Daly Waters, 29·90 and 88°; Port Darwin, 29·78 and 84°.

Victoria.—Generally fine but more or less cloudy, with light S. to W. winds, almost steady barometers, and moderate sea. Squally and misty on the coast. Extremes of barometers and temperature: Cape Otway, 30·03; Omeo, 29·90; Horsham, 74°; and Hamilton, 57°.

Tasmania.—Generally fine, with light N. to W winds, risen barometers, and smooth sea. Extremes of barometers and temperature: Circular Heads, 29·91; Falmouth, 29·80 and 64°; Low Heads, 60°.

New Zealand.—Generally fine, with strong N. to W. winds. Showery, and rough sea in extreme north parts. Barometers: Russell, 30·0; Wellington, 29·9; and Bluff, 29·7.

New South Wales.—Fine and clear west of the range, more or less cloudy in coast districts, passing showers of misty rain at Sydney, with light N.E. to S.E. winds, almost steady barometers, and smooth sea. Light rain has fallen at scattered places in N.E. parts; heaviest at Cassilis. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·16; Dubbo, 29·85; Bourke, 86°, and 60°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29·915. [Extra station: Lake Cudgellico, max. 91°, min. 61°, fine and hot. For further particulars see map.

Queensland.—Generally fine, with S.E. winds in south parts, and calms in north, steady barometers, and smooth sea. Rainfall: 0·57 inch at Townsville. Extremes of barometers and temperature: Cooktown, 29·98 and 89°; Cape Moreton, 29·88 and 74°.

9 P.M. OBSERVATIONS.

New South Wales.—Menindie, S., 28, fine and clear, temperature 80°; Wentworth, S.S.W., 14, fine, temperature 73°; Deniliquin, calm, fine, temperature 82°; Eden, S.S.W., 14, cloudy, smooth sea, temperature 68°; Moruya, S., 38, cloudy, temperature 69°; Cape St. George, S.E., 14, fine, smooth sea, temperature 74°; Sydney, E., 17, fine and clear, smooth sea, temperature 74°; Newcastle, S., 14, fine, smooth sea, temperature 74°; Port Macquarie, N.N.E., 42, sultry, smooth sea, temperature 83°; Clarence River, N.E., 14, fine, and fresh, smooth sea, temperature 78°; Walgett, S.W., 14, fine, temperature 93°; Dubbo, W., 14, fine, temperature 84°; Goulburn, N.W., 14, fine, temperature 79°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

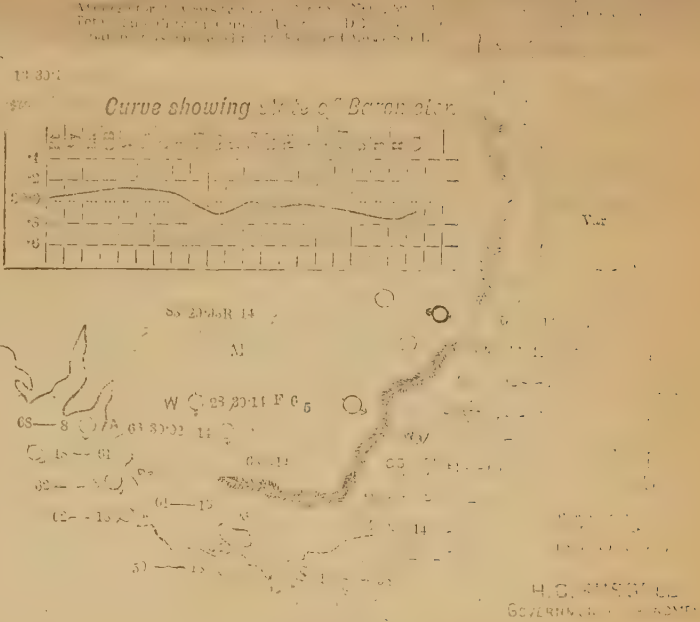
Macintyre: At Mungindi, 5 feet. Barwon: At Mogil Mogil, 5 feet; at Walgett, 8 feet 6 inches. Namoi: At Walgett, low. Culgoa: At Goodooga, 2 feet 10 inches. Darling: At Brewarrina, 13 feet; at Bourke, 19 feet 8 inches; at Louth, 18 feet 9 inches; at Tilpa, 26 feet; at Wilcannia, 26 feet 8 inches; at Menindie, 27 feet 8 inches; at Pooncarie, 23 feet 10 inches; at Wentworth, 15 feet. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 3 feet 2 inches; at Hay, 5 feet 6 inches; at Balranald, 11 feet 3 inches. Murray: At Albury, 2 feet 8 inches; at Euston, 11 feet.

ASTRONOMICAL MEMORANDA FOR DECEMBER 31.

Sun rises at 4.53, sets at 7.13; Moon, 10.11 a.m., 10.47 p.m.; Mercury 3.32 a.m., 5.41 p.m.; Venus, 3.20 a.m., 7.41 p.m.; Mars, 6.55 a.m., 8.55 p.m.; Jupiter, 12.50 a.m., 1.54 p.m.; Saturn, 7.47 p.m., 5.46 a.m. Full moon, 11th; new moon, 25th.

High water at Fort Denison, 11.50 a.m., — p.m.

Albury			
[illegible]			
[illegible]			
[illegible]			
[illegible]			
[illegible]			
[illegible]	c	102 66	0
[illegible]			
Pendarra	b	83 61	0
[illegible]	a	82 [illegible]	
C.St.Geo	c	93 53	0
Carcoar ..	b	82 [illegible]	
Casino ..		91 41	0
Cassilis ..	c	88 65	0
Clarence	b	89 [illegible]	
C'nd'b'lin	b	98 51	0
Cooma ..	c	90 52	0·05
[illegible]	b	[illegible]	
[illegible]	b	[illegible]	
Deniliq'n	b	[illegible]	
Dubbo ..	b	94 53	0
Eden	b	76 53	0·01
Euston ..	b	87 54	0
Forbes ..	b	96 56	0
Gl'n Inn's	b	90 [illegible]	0·04
Gou burn	g	91 55	0
Grafton ..	b	94 65	0·03
Gulgong	b	92 [illegible]	0
Gunned'h	b	96 67	0
Hay	b	85 45	0
Inverell ..	b	96 [illegible]	[illegible]
Kiandra	b	82 30	0
Lismore	c	91 [illegible]	0·02
Maitland	c	93 69	0
Marsdens	b	90 67	0
Menindie	b	85 63	0
Molong ..	b	96 52	0
M'r'ng'r'll	b	88 62	0
Moree ..	b	100 68	0·27
[illegible]	a	67 [illegible]	0·01
Moss Vale	r	79 55	0·34
Mt. Hope	b	97 —	0
M. Vict'ria	b	86 50	0
Mudgee	b	93 52	0
M'r'mb'h	b	89 56	0
M'r'r'ndi	c	83 64	0·95
Mus'lbr'k	g	95 62	0
Narrabri	b	105 67	0
Newcastle	g	78 68	0
Orange ..	b	83 53	0
Picton ..	o	86 62	0
P. M'q'rie	c	88 65	0·03
P. St'ph'n	g	82 63	0
Q'nbeyan	b	83 63	0
Quirindi	b	88 61	0
Singleton	g	90 71	0
SYDNEY ..	g	76 64	0
Tamw'rth	b	99 62	0
Taralga ..	c	86 [illegible]40	0
Taree ..	g	90 66	0·06
T'nt'rfield	b	91 69	0·25
Wagga ..	b	94 56	0
Walcha ..	b	88 54	0
Walgett ..	b	104 64	0
Warrah ..	b	92 60	0·12
W'ntw'rth	b	83 [illegible]55	0
W'll'ng'ng	c	85 63	0·18
Young ..	b	94 55	0



NOTES EXPLANATORY OF MAP.

In the list of stations the column headed W.T. gives the state of the weather at 9 a.m., standing for blue sky; c, detached clouds; d, drizzling rain; f, fog; g, gloomy; h, hazy; m, misty; n, frosty; o, overcast; p, passing showers; r, rain; s, snow; t, thunder; u, threatening. The next column, M's gives the maximum temperature for previous 24 hours. M'n the corresponding minimum temperature; r n, the rain for the previous 24 hours. The symbols used in the map are explained on the margin. At each observation the wind symbol is placed like a vane pointing to the direction from which the wind is coming. A clear circle with it means fine weather; a circle with bar, cloudy weather; and a black spot, raining. Next to this symbol are placed figures denoting the number of miles the wind is moving per hour. Next, a symbol showing the state of the sea; and, lastly, figures denoting the shade temperature at 9 a.m. The barometer curve shows the state of barometers round the coast from Perth to Cooktown: P, Perth; Ay, Albany; Ea, Eucla; CE, Cape Borda; A, Adelaide; Ke, Kadina; L, Port Lincoln; M, Melbourne; W P, Wilson's Promontory; Go, Gabo; L, Point Macleay; C G, Jervis Bay; Wg, Wollongong; N, Sydney; N, Newcastle; P M, Port Macquarie; C, Clarence River; B, Brisbane; R, Rockhampton; Ct, Cooktown. Inland the state of barometers is given in figures at Albury, Deniliquin, Wentworth, Menindie, Bourke, and Cooper Springs. The barometer curve enables one at a glance to trace the depressions, beginning with Western Australia, and passing along eastwards; northerly winds preceding them, and southerly following.

Western Australia.—On the south coast cloudy, with easterly winds and smooth sea. Extremes of barometers and temperature: Esperance Bay, 30·07 and 65°; Albury, 30·02.

South Australia.—Generally fine and cool, with scattered clouds on parts of the coast, light S. to S.E. winds, almost steady barometers, and smooth sea. Extremes of barometers and temperature on the coast: Cape Borda, 30·15 and 61°; Eucla, 30·10 and 70°. In Northern Territory: Daly Waters, 29·88 and 92°; Port Darwin, 29·79 and 88°.

Victoria.—Generally fine, with clouds in places, light S. to W. winds, risen barometers, and smooth sea; squally at Wilson's Promontory. Extremes of barometers and temperature: Lakes' Entrance, 30·11; Echuca, 29·94; Horsham, 72°; and Omeo, 57°.

Tasmania.—Generally fine, with fresh S. to W. winds, risen barometers, and moderate sea. Rainfall: 0·02 inch at Circular Head and Southport. Extremes of barometers and temperature: Low Heads, 29·97 and 60°; Hobart, 29·86; and Southport, 56°.

New Zealand.—Generally fine, with N. to N.W. winds; passing showers from E. at Russell. Barometers: In extreme north, 30·00; at Wellington and Bluff, 29·9.

New South Wales.—Generally fine west of the range, cloudy and gloomy in coast districts, with fresh N.E. to S.E. and S. winds, rising barometers, and smooth to moderate sea. Light rain has fallen in the eastern division of the colony; heaviest on the range in north. Extremes of barometers and temperature at 9 a.m.: Wentworth, 30·14; Walgett, 85°; Dubbo, 29·87; and Goulburn, 60°. Reading of the standard barometer at Sydney, corrected to 32° Fahr. and mean sea level, at 9 a.m., 29·951. Extra station: Lake Cudgellico, max. 82°, min. 64°, fine and warm. For further particulars see map.

Queensland.—Generally fine, with light S.E. to E. winds and calms, steady barometers, and smooth to moderate sea. Extremes of barometers and temperature: Cooktown, 29·96 and 92°; Cape Moreton, 29·84 and 76°.

3 P.M. OBSERVATIONS.

Victoria.—Barometers steady. Portland, S.W., 24, cloudy, smooth sea, temperature 63°; Cape Otway, W.S.W., 14, [illegible] smooth sea, temperature [illegible]; Queenscliff, S., 12, [illegible], temperature 64°; Cape Schanck, S., 6, cloudy, smooth sea, temperature 66°; Wilson's Promontory, S.W., 24, squally, [illegible], temperature 60°; Lakes' Entrance, S.W., 14, cloudy, temperature 69°.

New South Wales.—Menindie, W., fine, temperature 75°; Wentworth, S., fine, temperature 71°; Deniliquin, N., 14, fine, clear, temperature 73°; Echuca, S.E., 24, Port Hill, fine, temperature 64°; Moruya, E.S.E., 24, fine, sea smooth, temperature 68°; Cape St. George, S.E., 42, cloudy, moderate sea, temperature 67°; Sydney, S., 14, fine, smooth sea; Newcastle, S.S.E., 30, cloudy, moderate sea, temperature 68°; Port Macquarie, S., 42, sultry, smooth sea, temperature 82°; Clarence River, N.E., fine, smooth sea, temperature [illegible]; Wardell, N.E., fine, temperature 92°; Dubbo calm. See temperature [illegible]. Goulburn, E.N.E., fine, temperature 69°.

HEIGHT OF RIVERS ABOVE SUMMER LEVEL.

Macintyre: At Mungindi, 5 feet. Barwon: At Mogil Mogil, 5 feet; at Walgett, 7 feet 10 inches. Namoi: At Walgett, [illegible]. Culgoa: At Goodooga, 2 feet 8 inches. Darling: At Brewarrina, 12 feet 9 inches; at Bourke, 19 feet; at Louth, 18 feet 3 inches; at Tilpa, 26 feet 3 inches; at Wilcannia, [illegible] feet 4 inches; at Menindie, 27 feet 8 inches; at Pooncarie, 23 feet 9 inches; at Wentworth, 15 feet. Murrumbidgee: At Gundagai, 3 feet; at Wagga, 3 feet; at Hay, 5 feet; at Balranald, 11 feet 3 inches. Murray: At Albury, 2 feet 4 inches; at Euston, 11 feet.

ASTRONOMICAL MEMORANDA FOR JANUARY 1.

Sun rises at 4.54, sets at 7.13; Moon, 11.4 a.m., 11.20 p.m.; Mercury 3.32 a.m., 5.44 p.m.; Venus, 5.21 a.m., 7.43 p.m.; Mars, 6.55 a.m., 8.53 p.m.; Jupiter, 12.46 a.m., 1.51 p.m.; Saturn, [illegible] p.m., 5.41 a.m. Full moon, 10th; new moon, 24th.

High water at Fort Denison, 12.7 a.m., [illegible] p.m.

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